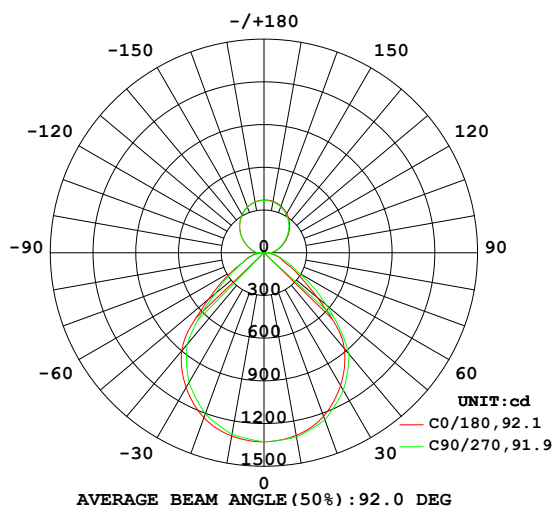


LUMINAIRE PHOTOMETRIC TEST REPORT

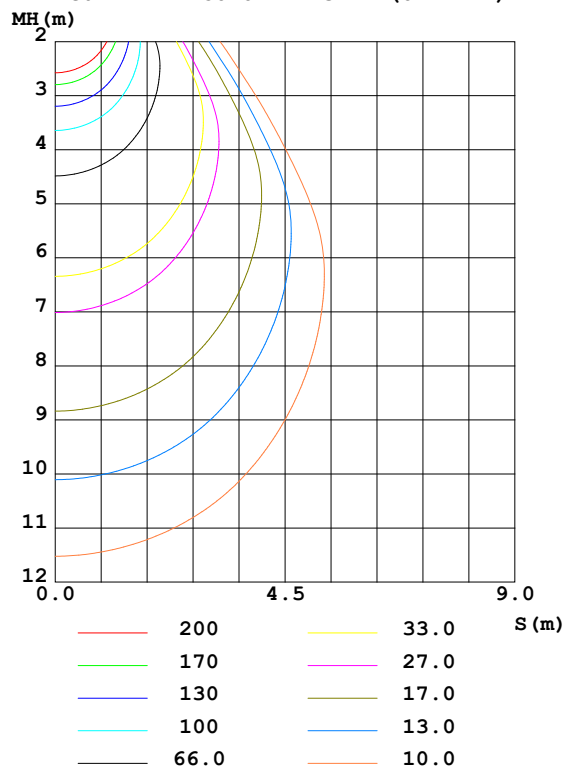
Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 104.80 lm/W			
MODEL	OSRAM-3000K	I _{max} (cd)	1328	S/MH (C0/180)	1.23
NOMINAL POWER (W)	38	LOR (%)	100.0	S/MH (C90/270)	1.18
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	3930.8	η UP,DN (C0-180)	14.5,36.8
NOMINAL FLUX (lm)	3930.82	CIE CLASS	SEMI-D.	η UP,DN (C180-360)	14.5,34.2
LAMPS INSIDE	1	η up (%)	29.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.0	η down (%)	71.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

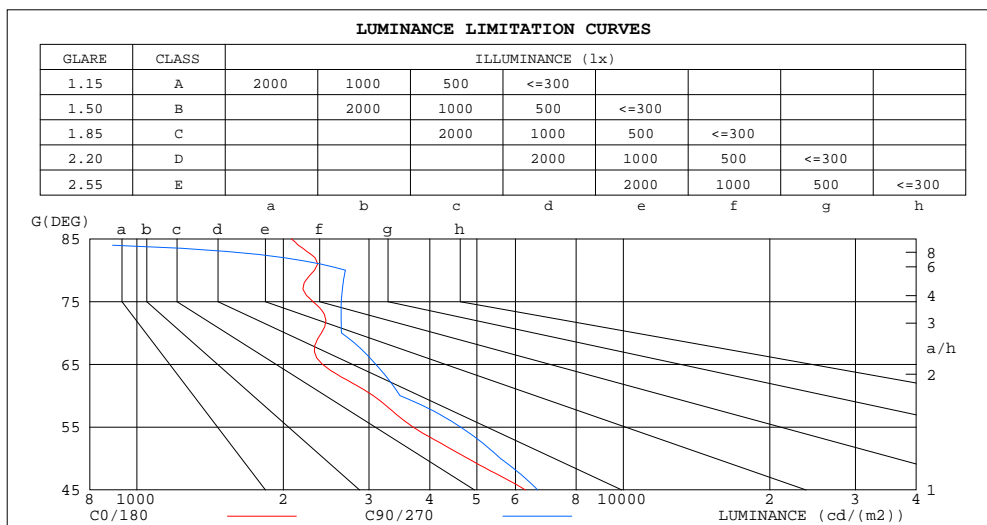
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1302	1306	1314	1307	1307	1292	1295	1294	0- 10	125.2	125.2	3.19,3.19
20	1222	1238	1250	1232	1233	1201	1205	1209	10- 20	357.9	483.1	12.3,12.3
30	1076	1103	1116	1104	1094	1059	1054	1060	20- 30	533.2	1016	25.9,25.9
40	877.5	910.8	929.5	907.8	897.9	854.4	839.9	832.9	30- 40	616.5	1633	41.5,41.5
50	489.1	587.0	571.0	464.7	507.1	487.1	443.9	377.5	40- 50	530.5	2163	55,55
60	243.3	236.3	276.2	271.0	253.2	214.0	218.1	232.6	50- 60	313.6	2477	63,63
70	130.3	154.0	143.2	152.4	134.8	127.0	121.3	134.7	60- 70	179.8	2657	67.6,67.6
80	63.99	72.22	74.06	75.17	69.82	57.70	54.45	60.22	70- 80	106.1	2763	70.3,70.3
90	47.84	32.45	44.96	43.31	43.43	41.93	44.00	46.69	80- 90	28.25	2791	71,71
100	83.75	67.36	78.73	77.45	76.89	76.03	77.24	81.55	90-100	64.20	2855	72.6,72.6
110	128.2	117.2	119.6	116.5	116.0	115.1	116.4	122.8	100-110	102.6	2958	75.2,75.2
120	177.6	172.9	169.2	164.3	163.6	162.3	164.9	173.0	110-120	141.2	3099	78.8,78.8
130	230.0	225.4	221.5	216.4	215.4	213.8	217.3	225.5	120-130	174.0	3273	83.3,83.3
140	278.7	273.7	270.2	265.6	264.9	262.9	266.5	274.4	130-140	189.4	3462	88.1,88.1
150	319.6	314.5	311.8	308.0	307.8	305.2	308.9	315.7	140-150	182.2	3645	92.7,92.7
160	349.8	344.9	343.3	341.0	341.4	338.2	341.2	346.4	150-160	151.3	3796	96.6,96.6
170	367.1	362.8	362.5	361.8	362.9	359.4	361.5	365.0	160-170	99.98	3896	99.1,99.1
180	370.8	370.8	370.8	370.8	370.8	370.8	370.8	370.8	170-180	34.89	3931	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:Jason Long
 Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 γ Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:5.850m [K=1.7094]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: $\phi 450\text{mm} \times \text{H}78\text{mm}$	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi 450\text{mm}$	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2078	0
80	2318	2683
75	2301	2631
70	2396	2633
65	2407	3096
60	3061	3475
55	3696	4627
50	4787	5588
45	6290	6669

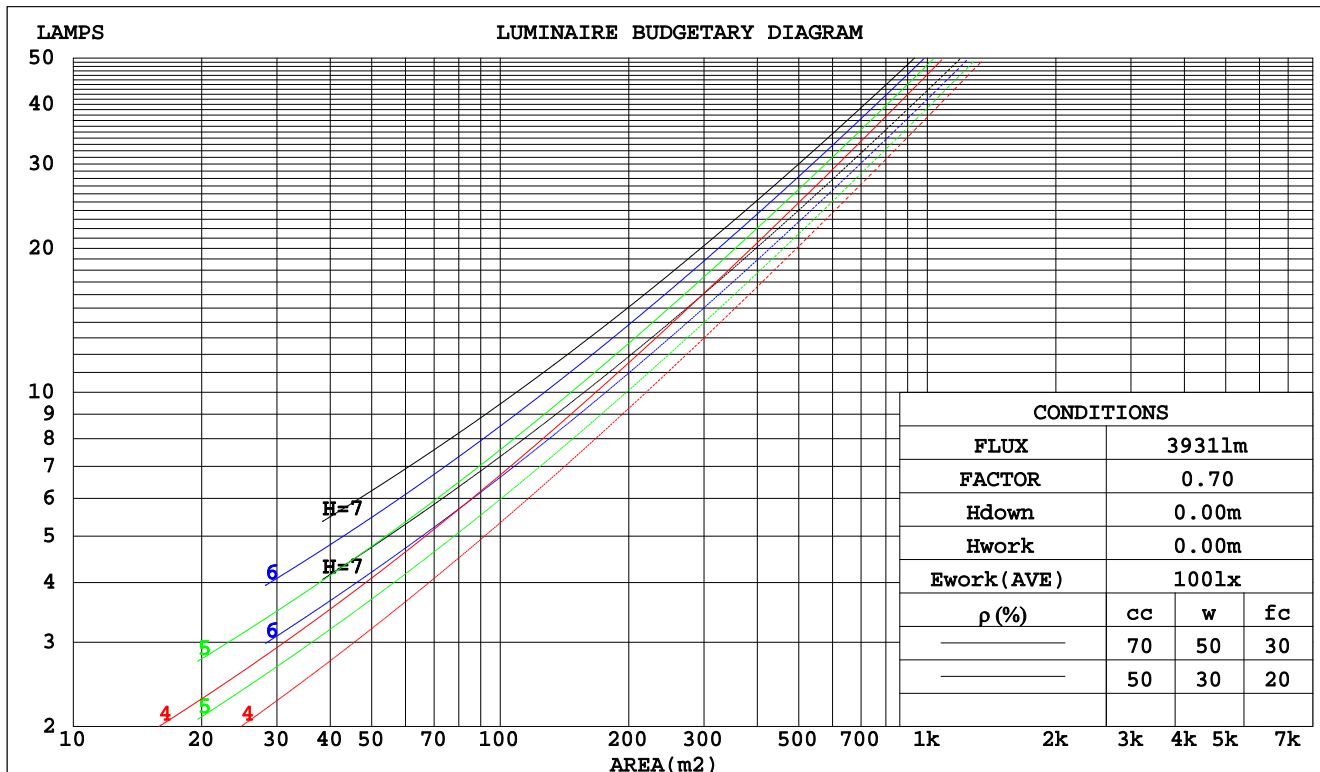
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
0.0	1.12	1.12	1.12	1.06	1.06	1.06	.95	.95	.95	.85	.85	.85	.75	.75	.75	.71
1.0	.00	.96	.93	.94	.91	.88	.85	.83	.80	.76	.75	.73	.68	.67	.66	.62
2.0	.88	.82	.78	.84	.79	.75	.76	.72	.68	.68	.65	.63	.62	.59	.57	.54
3.0	.79	.72	.66	.75	.69	.64	.68	.63	.59	.62	.58	.54	.56	.53	.50	.47
4.0	.70	.63	.57	.67	.60	.55	.61	.56	.51	.56	.51	.48	.50	.47	.44	.41
5.0	.63	.56	.50	.61	.54	.48	.55	.50	.45	.51	.46	.42	.46	.42	.39	.36
6.0	.57	.50	.44	.55	.48	.43	.50	.44	.40	.46	.41	.37	.42	.38	.35	.33
7.0	.52	.44	.39	.50	.43	.38	.46	.40	.36	.42	.37	.34	.39	.35	.31	.29
8.0	.48	.40	.35	.46	.39	.34	.42	.36	.32	.39	.34	.30	.36	.32	.28	.26
9.0	.44	.37	.32	.42	.35	.31	.39	.33	.29	.36	.31	.27	.33	.29	.26	.24
10.0	.41	.33	.29	.39	.32	.28	.36	.30	.26	.33	.29	.25	.31	.27	.24	.22



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

WEC AND CCEC

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: φ450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ450mm	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.260	.148	.047	.244	.139	.044	.215	.123	.039	.187	.108	.035	.163	.094	.030		
2.0	.245	.134	.041	.231	.127	.039	.205	.114	.035	.180	.101	.032	.158	.089	.028		
3.0	.229	.122	.037	.217	.116	.035	.193	.104	.032	.170	.093	.029	.150	.083	.026		
4.0	.214	.111	.033	.203	.106	.031	.181	.096	.029	.160	.086	.026	.141	.077	.023		
5.0	.200	.102	.030	.190	.097	.028	.170	.088	.026	.151	.080	.024	.133	.071	.021		
6.0	.188	.094	.027	.178	.090	.026	.159	.082	.024	.142	.074	.022	.126	.066	.020		
7.0	.176	.087	.025	.167	.083	.024	.150	.076	.022	.134	.069	.020	.119	.062	.018		
8.0	.166	.081	.023	.157	.077	.022	.142	.071	.020	.127	.064	.019	.113	.058	.017		
9.0	.156	.076	.021	.149	.072	.020	.134	.066	.019	.120	.060	.017	.107	.054	.016		
10.0	.148	.071	.020	.141	.068	.019	.127	.062	.018	.114	.057	.016	.102	.051	.015		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.411	.411	.411	.352	.352	.352	.240	.240	.240	.138	.138	.138	.044	.044	.044	
1.0	.400	.379	.361	.342	.326	.311	.234	.224	.215	.135	.130	.125	.043	.042	.040	
2.0	.390	.356	.328	.334	.307	.283	.229	.212	.198	.132	.123	.116	.042	.040	.038	
3.0	.382	.339	.305	.328	.293	.265	.225	.203	.186	.130	.119	.109	.042	.039	.036	
4.0	.375	.327	.290	.321	.282	.252	.221	.197	.177	.128	.115	.105	.041	.038	.035	
5.0	.368	.317	.279	.316	.274	.243	.218	.191	.171	.126	.112	.102	.041	.037	.033	
6.0	.361	.309	.271	.311	.267	.236	.214	.187	.167	.124	.110	.099	.040	.036	.033	
7.0	.355	.302	.265	.306	.262	.231	.211	.184	.164	.123	.108	.097	.040	.035	.032	
8.0	.350	.297	.260	.301	.257	.227	.208	.181	.161	.121	.107	.096	.039	.035	.032	
9.0	.344	.292	.257	.297	.253	.224	.205	.178	.159	.120	.105	.095	.039	.035	.031	
10.0	.339	.288	.254	.293	.250	.221	.203	.176	.157	.118	.104	.094	.038	.034	.031	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm											
NAME: SUGAR 450-U-36W-830					TYPE:Ceiling light			WEIGHT:0.2			
SPEC.:3000K					DIM.: φ450mm*H78mm			SERIAL No.:			
MFR.: NEKO LIGHTING AG					SUR.:φ450mm			Shielding Angle:			
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		Viewed crosswise					Viewed endwise				
x = 2H y = 2H		10.9	12.0	11.6	12.6	13.3	11.4	12.5	12.0	13.1	13.8
	3H	11.4	12.4	12.1	13.0	13.8	12.1	13.0	12.7	13.7	14.4
	4H	11.8	12.7	12.5	13.3	14.1	12.3	13.2	13.0	13.9	14.7
	6H	12.0	12.8	12.7	13.5	14.3	12.6	13.4	13.3	14.1	14.9
	8H	12.1	12.9	12.8	13.6	14.4	12.6	13.4	13.3	14.1	14.9
	12H	12.1	12.9	12.9	13.6	14.4	12.6	13.3	13.3	14.0	14.9
4H	2H	11.1	11.9	11.7	12.6	13.4	11.5	12.4	12.2	13.0	13.8
	3H	11.8	12.5	12.5	13.2	14.1	12.3	13.1	13.0	13.8	14.6
	4H	12.2	12.9	13.0	13.7	14.5	12.8	13.4	13.5	14.2	15.0
	6H	12.6	13.2	13.4	14.0	14.9	13.2	13.8	14.0	14.6	15.5
	8H	12.8	13.4	13.6	14.2	15.1	13.3	13.8	14.1	14.6	15.5
	12H	12.9	13.4	13.7	14.2	15.2	13.2	13.7	14.0	14.5	15.5
8H	4H	12.4	12.9	13.1	13.7	14.6	12.8	13.4	13.6	14.1	15.1
	6H	12.9	13.4	13.7	14.2	15.1	13.4	13.9	14.2	14.7	15.6
	8H	13.2	13.6	14.0	14.4	15.4	13.6	14.0	14.4	14.8	15.8
	12H	13.4	13.7	14.3	14.6	15.6	13.5	13.9	14.4	14.7	15.7
12H	4H	12.3	12.8	13.1	13.6	14.6	12.8	13.3	13.6	14.1	15.0
	6H	12.9	13.3	13.8	14.2	15.2	13.4	13.8	14.3	14.6	15.6
	8H	13.3	13.6	14.1	14.5	15.5	13.6	13.9	14.5	14.8	15.8
Variations with the observer position at spacings:											
S = 1.0H	+ 0.6 / - 0.7					+ 0.5 / - 0.4					
1.5H	+ 0.3 / - 0.5					+ 0.3 / - 0.4					
2.0H	+ 1.0 / - 1.0					+ 0.9 / - 0.9					

CIE Pub.117, 3931 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 4.8$)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

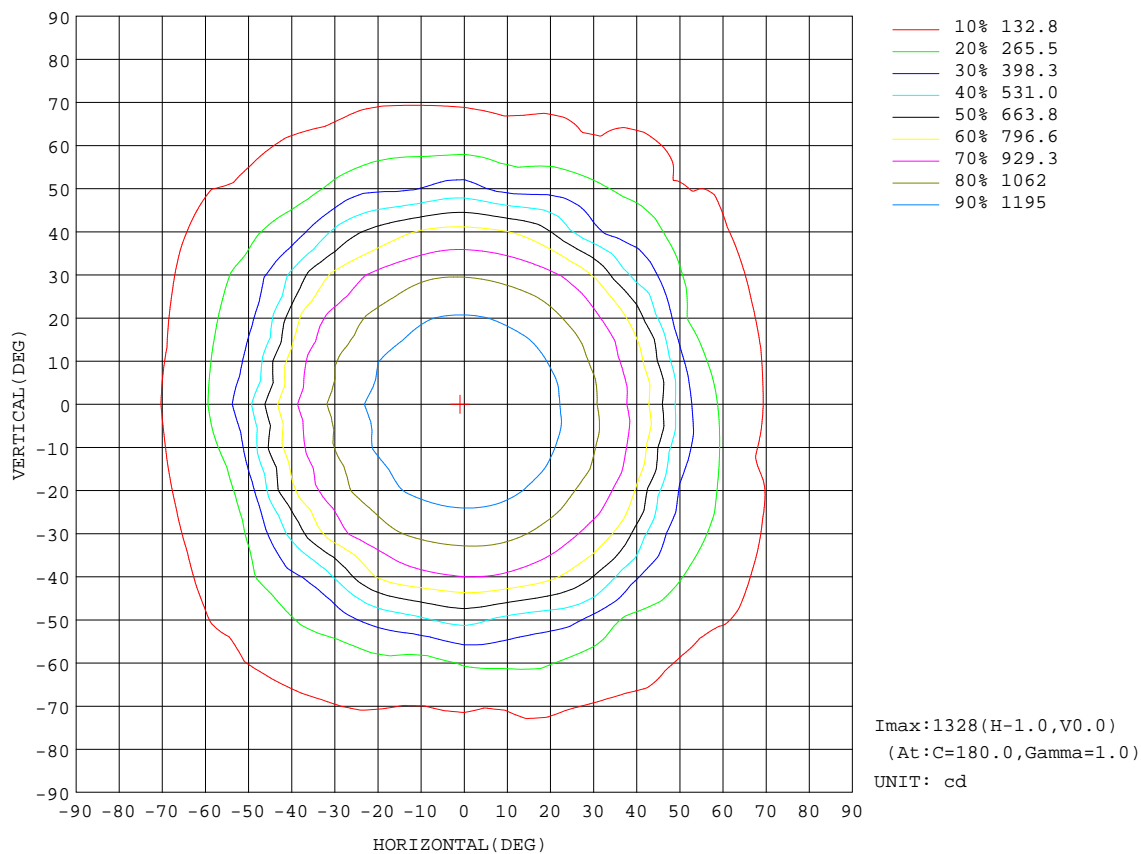
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	55	45	39	54	44	38	51	42	37	31
0.80	65	54	48	63	53	47	59	51	45	37
1.00	72	62	56	70	61	55	65	59	52	43
1.25	79	69	63	76	67	61	70	63	58	48
1.50	84	74	68	80	72	66	74	67	63	51
2.00	90	82	76	86	79	73	79	73	69	56
2.50	93	86	80	89	83	78	81	76	72	58
3.00	96	90	85	92	86	82	83	79	76	60
4.00	100	95	90	95	90	86	86	83	80	62
5.00	102	98	94	97	93	90	88	85	82	64
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

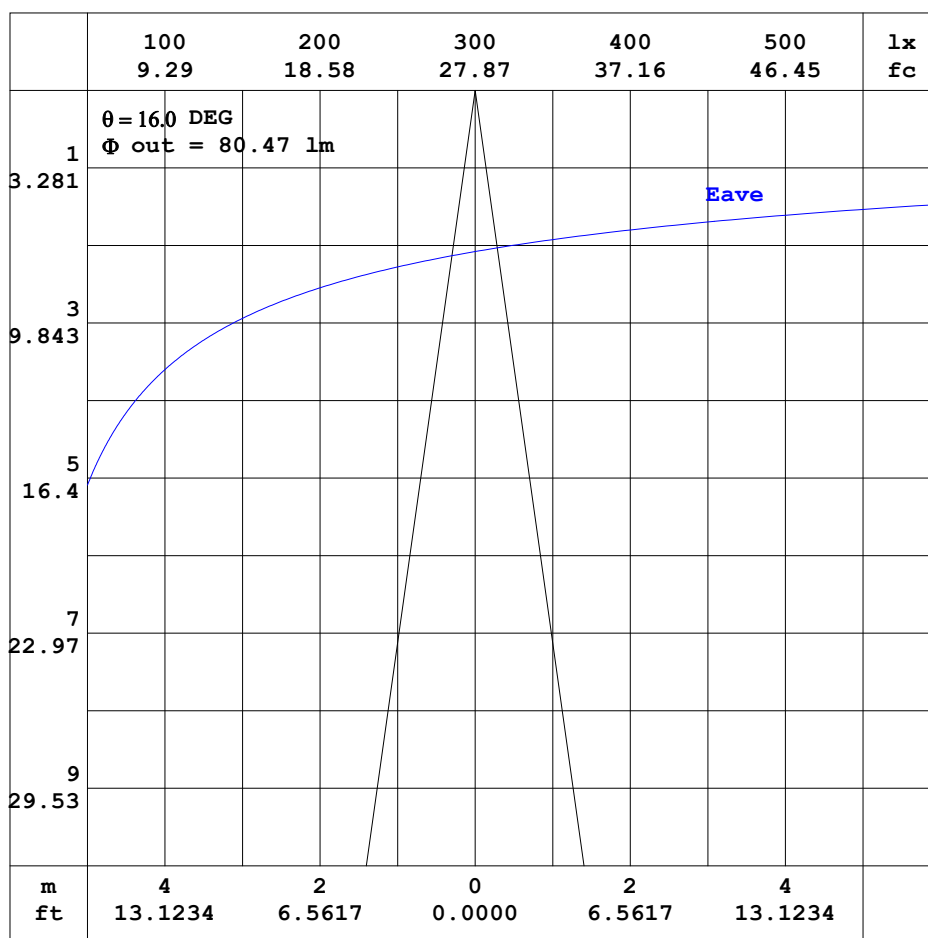


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

AAI CURVES

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:



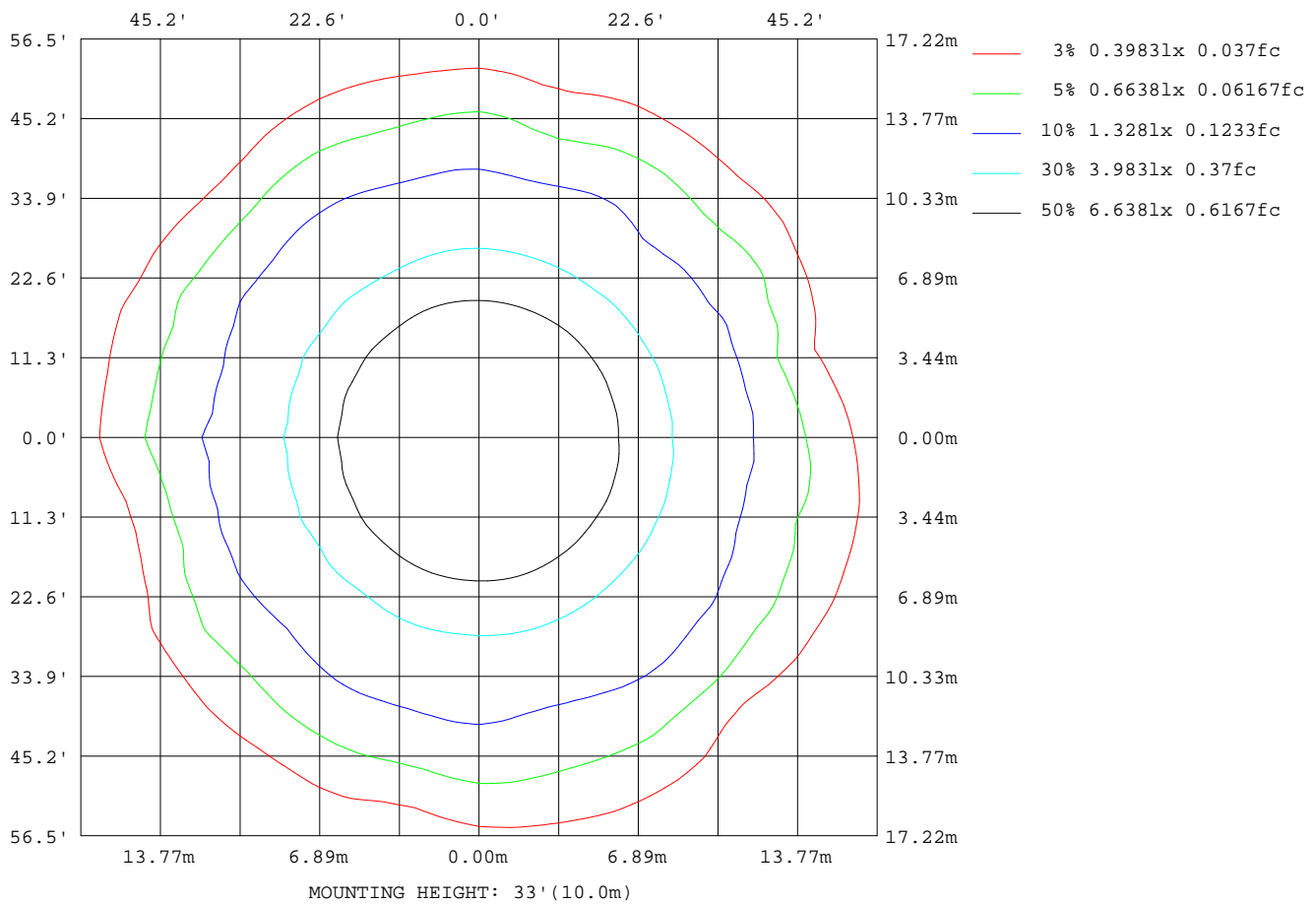
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

ISOLUX DIAGRAM

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LED Avg.L Report

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: φ450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ450mm	Shielding Angle:

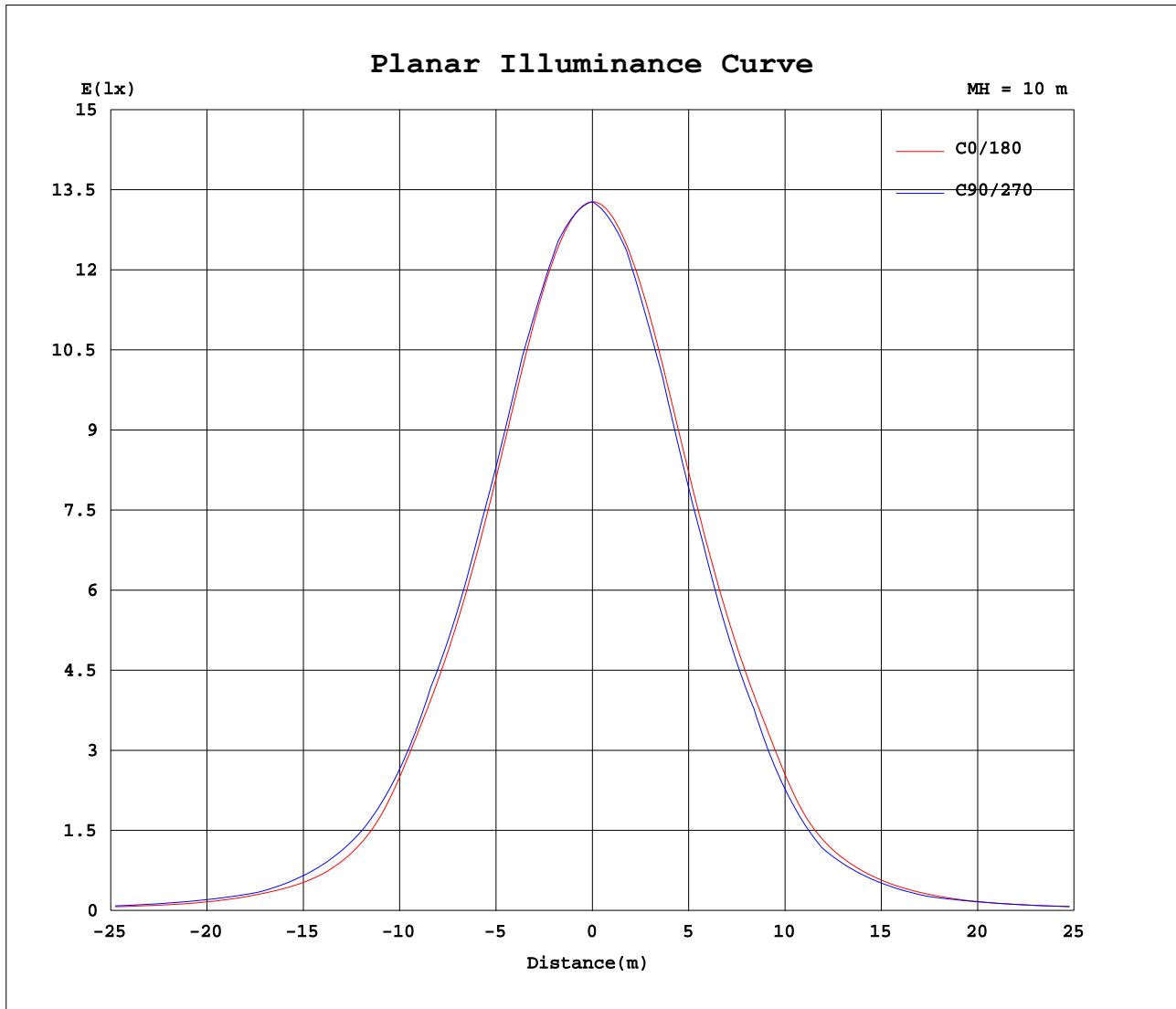
AvgL	cd/m2
L_0~180 (65) av	2454
L_0~180 (75) av	2376
L_0~180 (85) av	2251
L_90~270 (65) av	2813
L_90~270 (75) av	2393
L_90~270 (85) av	0
L_45 (65) av	2798
L_45 (75) av	2426
L_45 (85) av	1393

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: Jason Long
Test Date: 2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 5.850m [K=1.7094]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: φ450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ450mm	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328
5	1320	1320	1320	1319	1319	1319	1319	1319	1320	1320	1320	1320	1320	1320	1321	1321	1321	1321	1321
10	1302	1302	1302	1302	1303	1304	1305	1305	1305	1306	1307	1307	1308	1309	1310	1311	1312	1313	1314
15	1271	1271	1273	1275	1277	1276	1277	1279	1281	1281	1280	1280	1280	1281	1281	1281	1282	1282	1282
20	1222	1224	1228	1232	1232	1233	1235	1235	1237	1238	1239	1239	1240	1242	1244	1246	1247	1249	1250
25	1155	1160	1169	1169	1169	1171	1174	1179	1177	1177	1180	1182	1184	1185	1185	1185	1185	1183	1183
30	1076	1085	1094	1093	1095	1100	1101	1098	1099	1103	1107	1111	1112	1114	1116	1117	1117	1117	1116
35	984	999	1005	1006	1014	1015	1010	1012	1017	1018	1019	1022	1025	1027	1029	1030	1028	1025	1022
40	878	899	897	903	912	906	912	916	911	911	913	919	923	925	928	931	933	933	929
45	707	741	706	739	719	753	771	776	777	781	780	787	785	769	752	742	743	749	750
50	489	501	474	480	485	529	538	582	579	587	606	608	588	557	532	520	527	552	571
55	337	363	364	342	367	371	391	379	382	403	403	403	409	402	398	399	408	421	422
60	243	256	274	287	286	287	282	280	257	236	262	292	303	308	310	302	293	287	276
65	162	157	169	194	200	189	191	188	197	197	196	191	205	225	236	228	215	212	208
70	130	131	138	150	149	137	134	137	140	154	151	150	156	161	166	162	143	136	143
75	94.7	106	110	111	110	113	112	105	108	108	105	109	113	117	123	121	108	106	108
80	64.0	68.5	75.4	78.3	75.3	73.4	69.0	71.6	73.6	72.2	72.8	74.9	76.6	80.2	86.0	86.1	79.4	74.8	74.1
85	28.8	30.0	34.4	35.3	41.7	40.0	39.0	32.5	25.4	20.8	17.1	13.6	10.2	7.50	5.19	2.94	1.21	0.28	0.00
90	47.8	40.5	35.1	31.6	30.9	31.4	32.6	32.5	32.5	32.5	32.5	32.9	33.8	35.7	0.00	0.00	42.3	43.8	45.0
95	63.3	58.8	55.2	52.7	51.6	51.1	51.0	50.1	49.3	48.6	47.9	47.6	47.9	49.4	51.5	53.9	56.4	58.8	60.7
100	83.7	79.2	75.5	72.7	71.3	70.5	70.0	69.0	68.2	67.4	66.2	65.6	65.6	67.8	70.6	73.5	75.7	77.5	78.7
105	106	103	99.9	97.6	96.0	94.6	93.5	92.1	90.9	89.9	89.2	89.1	89.7	92.1	94.9	97.5	98.3	98.5	98.3
110	128	126	123	122	120	119	119	118	118	117	116	115	115	117	119	120	120	120	120
115	152	151	150	149	146	144	142	141	140	140	141	143	145	145	145	144	144	144	144
120	178	177	176	176	175	175	175	174	173	173	173	173	173	172	171	170	170	170	169
125	204	203	202	202	202	202	201	201	200	199	199	199	199	198	197	196	196	196	195
130	230	229	228	228	228	228	227	227	226	225	225	225	225	224	223	222	222	222	221
135	255	254	253	253	253	252	252	252	251	250	250	250	250	249	248	247	247	247	246
140	279	278	277	276	276	276	276	275	274	274	274	273	273	273	272	271	271	270	270
145	300	299	298	297	297	297	297	296	296	295	295	295	295	294	293	293	292	292	292
150	320	318	317	316	316	316	316	315	315	314	314	314	314	314	313	312	312	312	312
155	336	334	333	332	332	332	332	332	331	331	331	331	331	330	330	329	329	329	329
160	350	348	347	346	346	346	346	346	345	345	345	345	345	344	344	344	343	343	343
165	360	358	357	356	356	356	356	356	356	356	356	356	356	355	355	355	355	355	355
170	367	365	364	363	363	363	363	363	363	363	363	363	363	363	363	363	363	363	362
175	371	369	367	366	366	366	367	367	367	367	367	367	367	367	367	367	367	367	367
180	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

Table--2

UNIT: cd

C (DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328
5	1321	1321	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1321	1321	1321	1322	1323	1321
10	1314	1314	1314	1313	1312	1311	1310	1309	1307	1305	1304	1302	1302	1302	1302	1303	1305	1307	1303
15	1281	1281	1281	1281	1281	1281	1282	1283	1286	1287	1283	1278	1274	1270	1270	1272	1274	1278	1272
20	1250	1249	1248	1246	1243	1240	1237	1234	1232	1233	1236	1240	1235	1227	1220	1221	1226	1233	1223
25	1181	1181	1180	1180	1180	1182	1185	1187	1179	1172	1164	1167	1171	1170	1159	1152	1160	1170	1156
30	1115	1114	1112	1109	1106	1103	1100	1101	1104	1109	1100	1087	1084	1092	1088	1075	1079	1094	1077
35	1018	1016	1015	1016	1018	1021	1028	1020	1010	1003	1008	1012	994	989	1002	986	984	1004	983
40	925	922	919	918	913	901	886	886	908	904	880	882	905	877	880	883	868	898	860
45	741	733	734	745	758	762	735	692	676	705	733	697	711	730	687	727	670	722	638
50	563	544	532	536	546	543	522	493	465	479	496	508	487	488	462	480	466	507	451
55	400	377	373	382	385	381	374	358	347	355	370	342	325	287	287	295	323	367	348
60	253	227	236	264	268	260	257	267	271	261	246	254	228	219	208	218	237	253	251
65	190	174	182	197	192	177	172	194	204	183	160	165	180	171	172	176	176	168	163
70	141	134	137	148	151	146	145	150	152	145	136	133	138	131	122	122	128	135	131
75	105	102	103	109	116	116	115	107	104	109	108	109	99.5	100	94.5	90.7	92.9	101	99.5
80	71.7	71.7	70.5	71.4	80.2	84.2	86.5	77.5	75.2	79.1	76.8	76.0	66.9	64.4	63.5	57.6	60.3	69.8	66.5
85	0.27	1.09	2.39	4.27	7.61	11.7	17.0	19.9	24.5	32.6	36.2	40.8	38.3	33.4	31.4	26.0	20.9	33.6	27.7
90	45.2	45.1	0.00	0.00	44.1	43.7	43.5	43.4	43.3	43.3	43.3	43.4	43.5	43.6	43.7	43.7	43.6	43.4	42.9
95	61.1	60.9	60.4	60.4	60.3	60.2	60.1	59.9	59.8	59.8	59.9	60.0	59.9	59.8	59.7	59.7	59.8	59.7	59.3
100	78.9	78.6	78.1	78.0	77.9	77.8	77.7	77.6	77.4	77.4	77.4	77.3	77.2	77.0	76.9	76.9	77.0	76.9	76.4
105	98.1	97.7	97.3	97.1	96.8	96.7	96.5	96.4	96.3	96.2	96.0	95.9	95.8	95.7	95.6	95.7	95.7	95.6	95.1
110	119	119	118	118	118	117	117	117	116	116	116	116	116	116	116	116	116	116	115
115	143	142	141	141	141	141	140	139	139	139	139	139	139	139	138	138	138	139	138
120	168	168	167	167	167	166	166	165	164	164	164	164	164	164	163	163	163	164	163
125	195	194	193	193	193	192	192	191	190	190	190	190	190	190	189	189	189	190	189
130	221	220	219	219	219	218	218	217	216	216	216	216	216	215	215	215	215	215	214
135	246	245	244	244	244	244	243	242	242	242	242	241	241	241	240	240	241	241	240
140	269	269	268	268	268	267	267	266	266	266	266	266	265	265	264	265	265	265	264
145	291	291	290	290	290	290	289	288	288	288	288	288	287	287	287	287	288	288	286
150	311	311	310	310	310	310	309	308	308	308	308	308	308	307	307	307	308	308	307
155	328	328	327	327	327	327	327	326	326	326	326	326	326	325	325	326	326	326	325
160	343	342	342	342	342	342	342	341	341	341	341	341	341	341	341	341	341	341	340
165	354	354	354	353	353	353	353	353	353	353	353	353	353	353	353	353	354	354	352
170	362	362	362	362	362	362	362	362	362	362	362	362	362	362	362	363	363	363	362
175	367	367	367	367	367	367	367	367	367	367	367	367	368	368	368	368	369	369	367
180	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

Table--3

UNIT: cd

C (DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328
5	1320	1318	1317	1316	1315	1314	1313	1312	1312	1312	1311	1311	1311	1311	1311	1311	1311	1311	1312
10	1300	1297	1294	1292	1291	1291	1291	1292	1292	1293	1293	1294	1294	1295	1295	1295	1295	1295	1295
15	1266	1261	1259	1260	1262	1264	1266	1263	1258	1255	1253	1252	1251	1250	1250	1250	1250	1251	1251
20	1214	1210	1212	1217	1219	1211	1205	1201	1200	1202	1203	1204	1205	1206	1206	1206	1205	1205	1203
25	1146	1148	1155	1151	1141	1134	1137	1141	1145	1142	1138	1136	1134	1133	1132	1131	1130	1130	1130
30	1069	1079	1077	1063	1059	1065	1068	1059	1053	1051	1055	1058	1060	1060	1058	1056	1054	1051	1050
35	983	997	977	974	982	970	958	958	965	972	961	953	950	949	949	949	948	946	944
40	874	864	855	881	857	845	854	854	833	819	816	819	826	835	841	843	840	835	830
45	678	628	672	674	678	711	682	666	674	678	671	657	643	635	636	643	644	634	621
50	445	435	451	464	495	473	471	487	499	497	490	468	440	427	433	447	444	414	387
55	342	342	334	354	333	323	316	311	326	336	342	334	322	318	320	328	332	317	289
60	252	253	259	240	242	231	224	214	220	228	236	242	244	239	226	218	218	209	196
65	182	189	175	166	161	165	166	166	163	158	162	174	183	184	177	172	170	164	151
70	133	137	138	134	123	123	124	127	125	124	129	134	135	132	129	126	121	114	108
75	100	101	101	95.5	96.1	90.8	92.1	96.2	92.4	91.0	96.3	98.9	97.9	96.6	95.8	92.2	88.7	83.8	79.9
80	71.0	69.1	69.6	65.7	62.0	58.5	57.7	57.7	57.6	58.2	62.0	64.3	62.8	64.0	63.1	57.8	54.4	51.4	52.1
85	32.7	32.8	29.7	29.2	27.5	23.6	18.9	14.9	12.5	10.3	8.20	5.94	3.75	2.16	0.96	0.22	0.00	0.19	0.79
90	42.4	41.9	41.8	41.8	41.8	41.8	41.9	41.9	41.9	41.9	42.1	42.5	42.9	43.4	43.6	43.8	44.0	44.3	44.6
95	58.8	58.4	58.2	58.2	58.3	58.4	58.6	58.8	58.8	58.8	58.8	59.0	59.2	59.5	59.6	59.7	59.9	60.1	60.4
100	75.9	75.5	75.5	75.6	75.8	75.9	76.0	76.0	76.1	76.2	76.3	76.5	76.6	76.8	76.9	77.1	77.2	77.5	77.9
105	94.6	94.1	94.2	94.3	94.6	94.7	94.7	94.8	94.8	94.9	95.0	95.2	95.4	95.6	95.7	95.8	96.0	96.3	96.8
110	115	114	114	114	115	115	115	115	115	115	115	115	115	116	116	116	116	117	118
115	138	137	136	136	136	137	137	138	137	137	137	138	138	139	139	139	139	140	141
120	162	161	161	161	161	161	162	162	162	162	162	163	164	164	164	165	165	166	167
125	187	186	186	186	187	187	188	188	188	188	188	189	190	190	191	191	191	192	193
130	213	212	212	212	212	213	213	214	214	214	214	215	215	216	217	217	217	218	219
135	238	237	237	237	237	238	238	239	239	239	239	240	241	242	242	242	243	244	245
140	262	261	261	261	261	262	262	263	263	263	263	264	265	266	266	266	267	267	269
145	285	284	283	283	284	284	285	285	285	285	285	286	287	288	288	288	289	290	291
150	305	304	304	304	304	304	305	305	305	306	306	306	307	308	308	308	309	310	311
155	323	322	321	321	322	322	323	323	323	323	323	324	325	325	326	326	326	327	328
160	339	337	337	337	337	337	338	338	338	338	339	339	340	340	341	341	341	342	343
165	351	349	349	349	349	350	350	350	350	351	351	351	352	352	352	353	353	353	354
170	360	359	358	358	359	359	359	359	359	360	360	360	360	361	361	361	361	362	362
175	366	364	364	364	364	365	365	365	365	365	365	366	366	366	366	366	366	367	367
180	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:0.1704A P:37.51W PF:0.9766 Freq:49.90Hz Lamp Flux:3930.82x1 lm		
NAME: SUGAR 450-U-36W-830	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:3000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

Table--4

UNIT: cd

C (DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328	1328				
5	1312	1312	1312	1313	1313	1313	1314	1314	1315	1315	1316	1317	1317	1318	1319				
10	1295	1295	1295	1294	1294	1294	1294	1295	1296	1297	1297	1297	1298	1299	1300				
15	1252	1253	1254	1255	1257	1259	1262	1264	1263	1263	1265	1267	1267	1268	1269				
20	1202	1202	1201	1202	1203	1206	1209	1210	1211	1213	1214	1216	1221	1221	1220				
25	1130	1131	1132	1133	1136	1138	1140	1143	1148	1146	1146	1147	1152	1157	1155				
30	1048	1048	1049	1052	1056	1059	1060	1060	1062	1067	1069	1067	1069	1078	1077				
35	944	944	947	953	963	965	967	969	966	968	976	978	973	983	988				
40	825	822	819	814	812	813	833	836	840	842	856	867	865	869	885				
45	621	633	643	623	581	582	614	627	609	640	671	678	708	692	732				
50	388	416	449	459	436	403	378	421	444	444	476	454	453	460	494				
55	279	293	311	317	320	312	308	316	333	340	307	297	250	284	312				
60	203	218	220	218	224	230	233	235	236	214	217	212	203	211	234				
65	155	164	154	137	138	170	185	170	134	147	160	168	166	170	173				
70	114	122	123	118	118	130	135	130	125	123	129	125	121	120	128				
75	82.4	86.1	90.6	91.8	92.0	86.6	91.9	98.7	102	91.7	89.6	91.8	93.9	92.9	93.6				
80	52.2	52.5	57.1	59.1	62.8	60.5	60.2	65.3	66.1	65.7	60.5	56.0	60.2	61.3	62.3				
85	1.76	3.10	5.24	7.76	11.5	14.1	17.0	21.7	24.5	27.5	28.3	27.8	27.3	29.1	33.2				
90	44.9	45.0	45.2	45.4	45.8	46.2	46.7	47.1	47.6	48.0	48.8	49.5	49.8	49.6	48.9				
95	60.8	61.0	61.2	61.5	62.1	62.7	63.3	63.7	64.1	64.6	65.5	66.2	66.6	66.1	65.0				
100	78.3	78.7	79.1	79.6	80.3	80.9	81.6	82.2	82.8	83.3	84.1	84.7	85.1	85.0	84.5				
105	97.3	97.9	98.5	99.1	99.8	101	101	102	103	103	104	105	105	106	106				
110	118	119	120	120	121	122	123	124	124	125	126	127	127	128	128				
115	142	142	143	144	145	146	147	148	148	149	150	151	152	152	152				
120	168	168	169	170	171	172	173	174	174	175	176	177	178	178	178				
125	194	195	195	196	197	198	199	200	200	201	202	203	204	204	204				
130	220	221	221	222	223	224	225	226	227	227	228	229	230	230	230				
135	246	246	247	247	249	250	251	251	252	252	253	254	255	255	255				
140	270	270	271	271	272	273	274	275	275	276	277	278	278	279	279				
145	292	292	293	293	294	295	296	297	297	298	298	299	300	300	300				
150	312	312	312	313	314	315	316	316	317	317	318	318	319	319	320				
155	329	329	330	330	331	332	332	333	333	334	334	335	336	336	336				
160	343	344	344	345	345	346	346	347	347	348	348	349	349	349	350				
165	355	355	355	356	356	357	357	357	358	358	359	359	360	360	360				
170	363	363	363	364	364	365	365	365	365	365	366	366	367	367	367				
175	367	368	368	368	368	368	369	369	369	369	370	370	370	370	371				
180	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-11-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks: