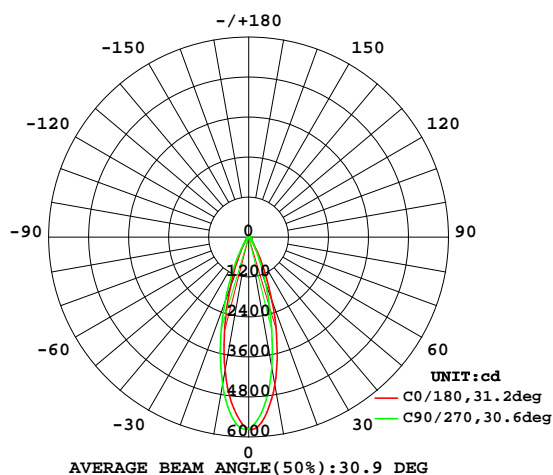


LUMINAIRE PHOTOMETRIC TEST REPORT

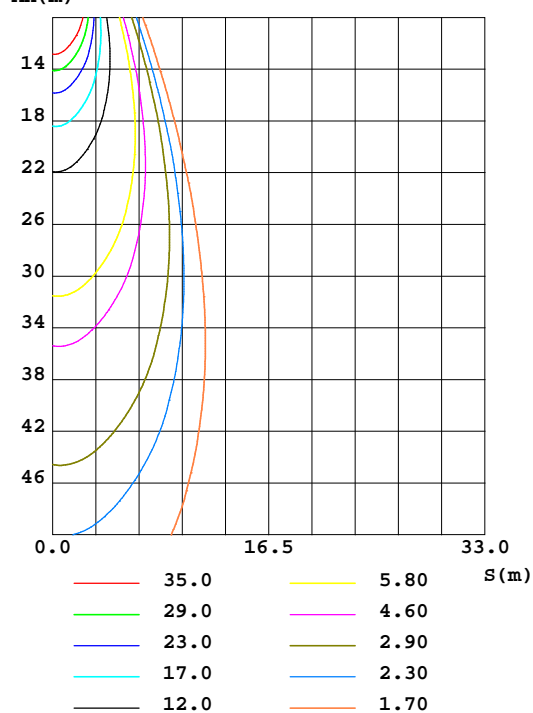
Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm		
NAME: S1-CN002(180528)	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 63.84 lm/W			
MODEL	TL-812-35W-2CCT-RC-WH	I _{max} (cd)	5815	S/MH(C0/180)	0.55
NOMINAL POWER(W)	34	LOR(%)	100.0	S/MH(C90/270)	0.47
RATED VOLTAGE(V)	228	TOTAL FLUX(lm)	2184.7	η UP,DN(C0-180)	0.1,47.5
NOMINAL FLUX(lm)	2184.65	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.1,52.2
LAMPS INSIDE	1	η up(%)	0.3	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	228.8	η down(%)	99.7	CIBSE SHR MAX	0.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-08-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:7.810m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	4522	4245	3992	3949	4087	4246	4508	4706	0- 10	473.8	473.8	21.7, 21.7
20	2067	1727	1494	1496	1651	1882	2096	2236	10- 20	819.5	1293	59.2, 59.2
30	542.2	476.3	412.4	405.6	446.8	497.8	573.1	601.5	20- 30	462.5	1756	80.4, 80.4
40	176.4	162.6	153.2	152.7	162.1	171.4	182.6	184.9	30- 40	177.3	1933	88.5, 88.5
50	99.66	95.69	92.54	91.96	94.47	99.19	105.5	103.2	40- 50	97.87	2031	93, 93
60	63.80	59.95	57.62	57.16	59.25	63.21	66.50	64.93	50- 60	69.95	2101	96.2, 96.2
70	36.35	34.52	33.54	32.91	34.97	36.40	38.88	38.66	60- 70	47.53	2149	98.4, 98.4
80	13.93	13.10	12.20	12.72	14.13	14.88	15.61	14.55	70- 80	26.27	2175	99.6, 99.6
90	0	0	0	0	0	0	0	0	80- 90	4.174	2179	99.7, 99.7
100	0	0	0	0	0	0	0	0	90-100	0	2179	99.7, 99.7
110	0	0	0	0	0	0	0	0	100-110	0	2179	99.7, 99.7
120	0	0	0	0	0	0	0	0	110-120	0	2179	99.7, 99.7
130	0	0	0	0	0	0	0	0	120-130	0	2179	99.7, 99.7
140	0.8916	1.222	1.631	1.721	0.9158	0.6285	0.1812	0.0671	130-140	0.1192	2179	99.7, 99.7
150	3.907	4.120	4.301	4.447	3.905	3.701	3.444	3.355	140-150	1.544	2181	99.8, 99.8
160	5.099	4.979	4.994	5.253	4.946	5.003	5.100	5.013	150-160	2.135	2183	99.9, 99.9
170	4.581	4.249	4.207	4.657	4.263	4.500	4.849	4.975	160-170	1.388	2184	100, 100
180	4.341	4.245	4.355	4.802	4.350	4.201	4.370	4.792	170-180	0.4202	2185	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

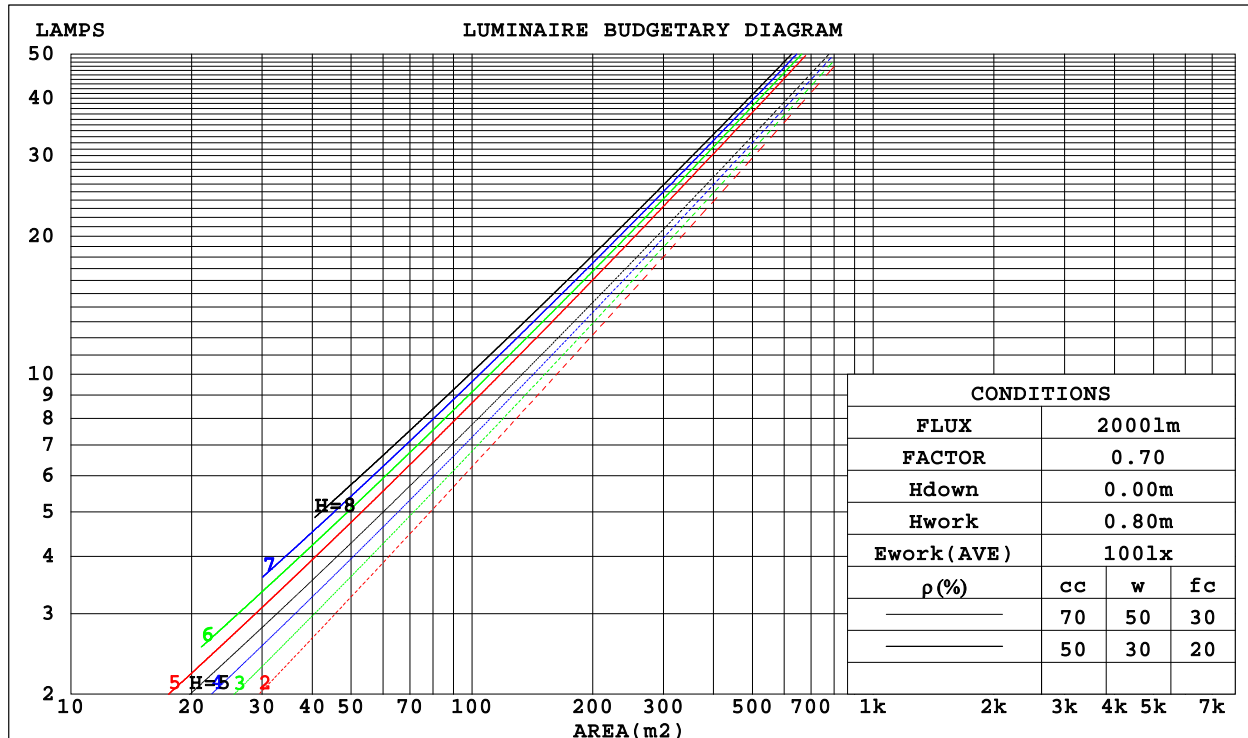
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2018-08-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity: 65.0%
 Test Distance: 7.810m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm		
NAME: S1-CN002(180528)	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION 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	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)										
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00	
1.0	1.11	1.08	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.97	.96	.95	.94	
2.0	1.04	.00	.97	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88	
3.0	.97	.93	.89	.96	.92	.88	.93	.90	.87	.91	.88	.86	.89	.86	.84	.83	
4.0	.92	.87	.83	.91	.86	.83	.89	.85	.82	.87	.83	.81	.85	.82	.80	.78	
5.0	.87	.82	.78	.86	.81	.78	.85	.80	.77	.83	.79	.76	.81	.78	.76	.74	
6.0	.83	.78	.74	.82	.77	.73	.81	.76	.73	.79	.75	.72	.78	.75	.72	.71	
7.0	.79	.74	.70	.79	.73	.70	.77	.73	.70	.76	.72	.69	.75	.71	.69	.67	
8.0	.76	.70	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.72	.69	.66	.65	
9.0	.73	.67	.64	.72	.67	.64	.71	.67	.64	.70	.66	.63	.70	.66	.63	.62	
10.0	.70	.65	.61	.69	.65	.61	.69	.64	.61	.68	.64	.61	.67	.63	.61	.60	



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2018-08-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity: 65.0%
 Test Distance: 7.810m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm		
NAME: S1-CN002(180528)	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION 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	.174	.099	.031	.167	.095	.030	.155	.089	.028	.143	.082	.026	.132	.077	.025															
2.0	.164	.090	.028	.158	.087	.027	.148	.082	.025	.138	.077	.024	.129	.073	.023															
3.0	.154	.082	.024	.149	.080	.024	.140	.076	.023	.131	.072	.022	.123	.068	.021															
4.0	.144	.075	.022	.140	.073	.022	.132	.070	.021	.125	.067	.020	.118	.064	.020															
5.0	.136	.069	.020	.132	.068	.020	.125	.065	.019	.119	.063	.019	.113	.060	.018															
6.0	.128	.064	.018	.125	.063	.018	.119	.061	.018	.113	.059	.017	.108	.057	.017															
7.0	.121	.060	.017	.118	.059	.017	.113	.057	.016	.108	.056	.016	.104	.054	.016															
8.0	.115	.056	.016	.113	.055	.016	.108	.054	.015	.104	.053	.015	.100	.051	.015															
9.0	.110	.053	.015	.107	.052	.015	.103	.051	.014	.100	.050	.014	.096	.049	.014															
10.0	.105	.050	.014	.103	.050	.014	.099	.049	.014	.096	.047	.013	.092	.046	.013															

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	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021		
1.0	.173	.159	.147	.148	.137	.127	.101	.094	.088	.058	.054	.051	.019	.018	.016		
2.0	.157	.135	.115	.135	.116	.100	.092	.080	.070	.053	.047	.041	.017	.015	.013		
3.0	.144	.116	.093	.123	.100	.080	.085	.069	.056	.049	.040	.033	.016	.013	.011		
4.0	.133	.101	.076	.114	.087	.066	.078	.061	.046	.045	.036	.027	.015	.012	.009		
5.0	.123	.089	.063	.106	.077	.055	.073	.054	.039	.042	.032	.023	.014	.010	.008		
6.0	.115	.079	.053	.099	.069	.047	.068	.048	.033	.040	.028	.020	.013	.009	.006		
7.0	.108	.071	.046	.093	.062	.040	.064	.043	.028	.037	.026	.017	.012	.008	.006		
8.0	.102	.065	.040	.088	.056	.035	.061	.040	.025	.035	.023	.015	.011	.008	.005		
9.0	.096	.060	.035	.083	.052	.030	.058	.036	.022	.034	.021	.013	.011	.007	.004		
10.0	.091	.055	.031	.079	.048	.027	.055	.034	.019	.032	.020	.011	.010	.007	.004		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-08-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
Humidity:65.0%
Test Distance:7.810m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm											
NAME: S1-CN002(180528)					TYPE:			WEIGHT:			
DIM.:					SPEC.:			SERIAL No.:			
MFR.:					SUR.:			PROTECTION 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	13.4	14.3	13.7	14.5	14.6	12.9	13.8	13.2	14.0	14.1	
	3H	14.4	15.2	14.7	15.4	15.6	13.9	14.7	14.2	14.9	15.1
	4H	14.9	15.6	15.1	15.8	16.1	14.4	15.1	14.6	15.3	15.6
	6H	15.2	15.9	15.5	16.1	16.4	14.6	15.3	14.9	15.6	15.8
	8H	15.2	15.9	15.5	16.2	16.4	14.6	15.3	15.0	15.6	15.9
	12H	15.2	15.9	15.5	16.1	16.4	14.6	15.3	14.9	15.5	15.8
4H	2H	13.8	14.5	14.1	14.8	15.0	13.4	14.1	13.7	14.4	14.6
	3H	15.0	15.6	15.3	15.9	16.2	14.6	15.2	14.9	15.5	15.8
	4H	15.5	16.1	15.9	16.4	16.7	15.1	15.7	15.4	16.0	16.3
	6H	15.9	16.5	16.3	16.8	17.2	15.5	16.0	15.8	16.3	16.7
	8H	16.0	16.5	16.4	16.9	17.2	15.5	16.0	15.9	16.4	16.7
	12H	16.0	16.4	16.4	16.8	17.2	15.5	15.9	15.9	16.3	16.7
8H	4H	15.7	16.2	16.1	16.5	16.9	15.3	15.8	15.7	16.1	16.5
	6H	16.2	16.6	16.6	17.0	17.4	15.7	16.2	16.2	16.6	17.0
	8H	16.3	16.7	16.7	17.1	17.5	15.8	16.2	16.3	16.6	17.0
	12H	16.3	16.6	16.7	17.0	17.5	15.8	16.1	16.2	16.5	17.0
12H	4H	15.7	16.1	16.1	16.5	16.9	15.3	15.7	15.7	16.1	16.5
	6H	16.2	16.5	16.6	17.0	17.4	15.7	16.1	16.2	16.5	17.0
	8H	16.3	16.6	16.8	17.1	17.5	15.8	16.1	16.3	16.6	17.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.4 / - 0.5					+ 0.3 / - 0.5					
1.5H	+ 0.6 / - 0.3					+ 0.3 / - 0.4					
2.0H	+ 0.5 / - 0.4					+ 0.5 / - 0.5					

CIE Pub.117 Corrected 2185 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.7)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-08-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
Humidity:65.0%
Test Distance:7.810m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm		
NAME: S1-CN002(180528)	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

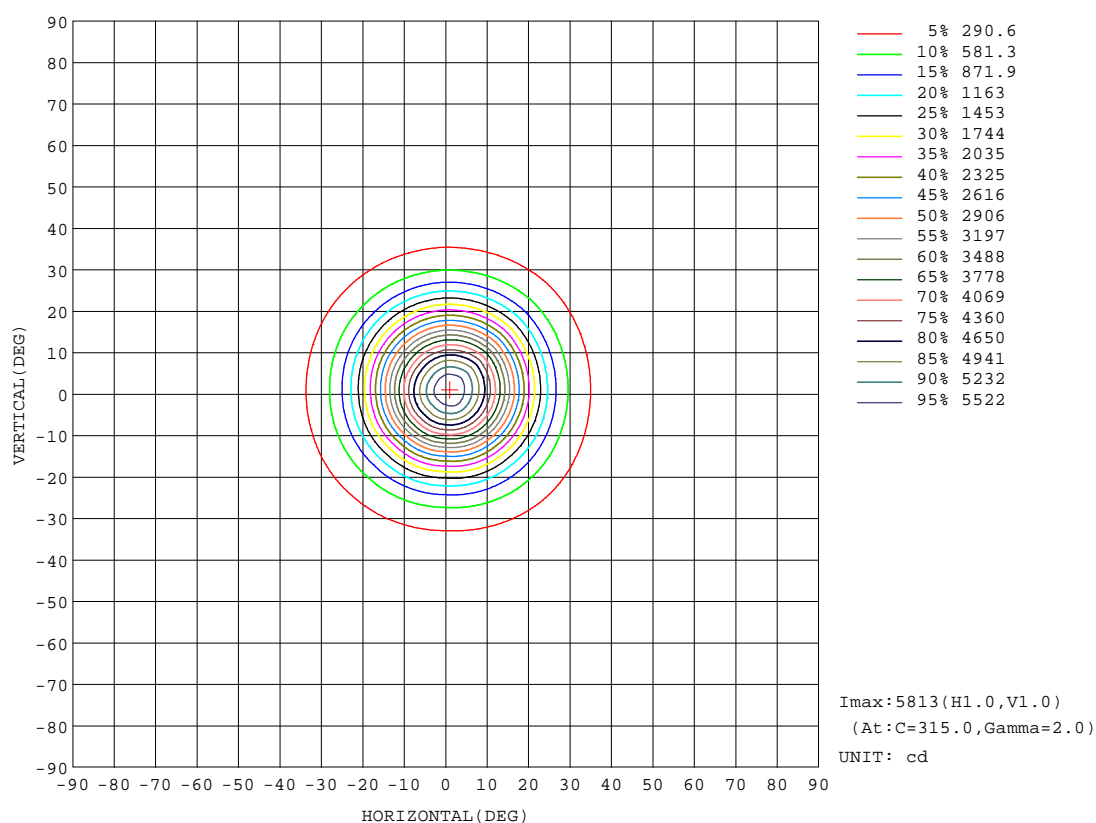
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	84	78	74	84	77	73	83	77	73	69
0.80	92	86	82	91	85	81	90	85	81	77
1.00	97	91	87	96	90	86	94	90	86	82
1.25	101	95	91	100	95	91	98	93	90	86
1.50	104	99	95	103	98	94	100	96	93	89
2.00	107	102	99	106	101	98	103	99	97	91
2.50	109	105	101	107	103	101	104	101	99	92
3.00	111	107	104	109	105	103	105	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-08-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
Humidity:65.0%
Test Distance:7.810m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm		
NAME: S1-CN002(180528)	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

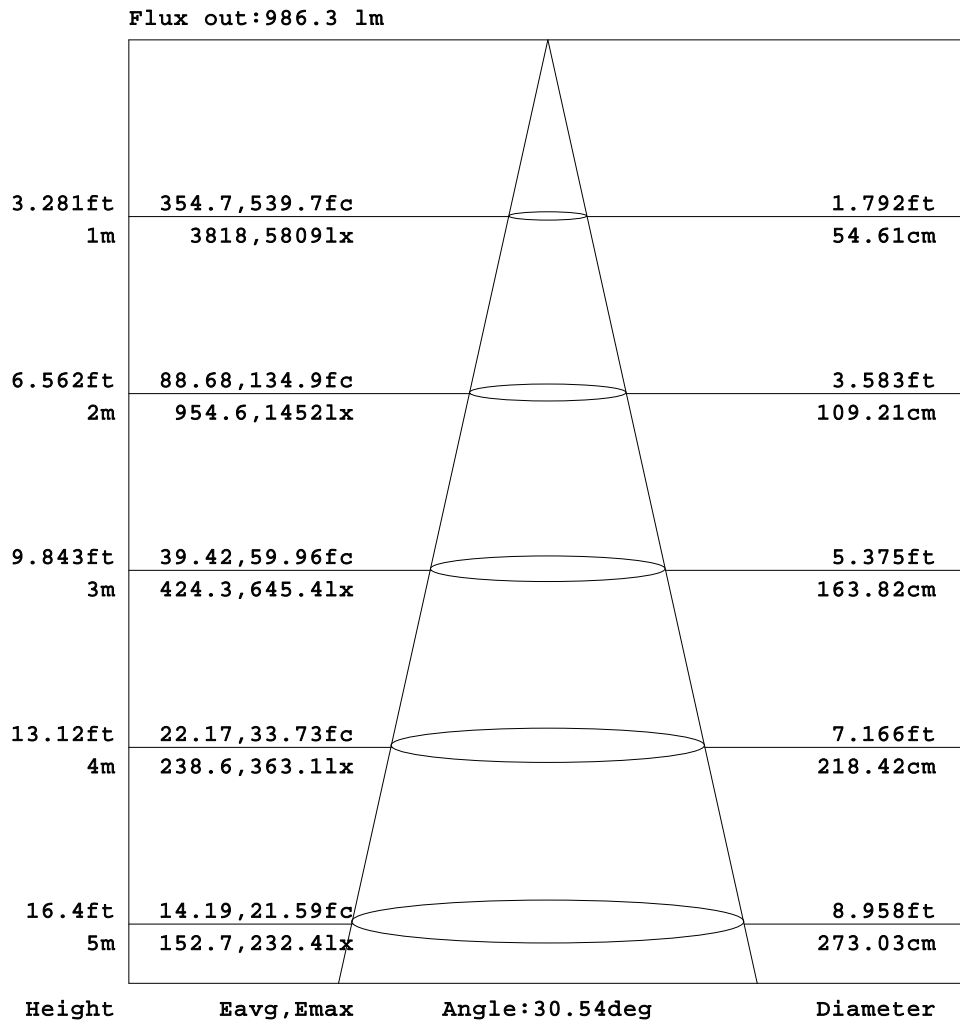


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-08-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
Humidity:65.0%
Test Distance:7.810m [K=1.0000]
Remarks:

AAI Figure

Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm		
NAME: S1-CN002(180528)	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



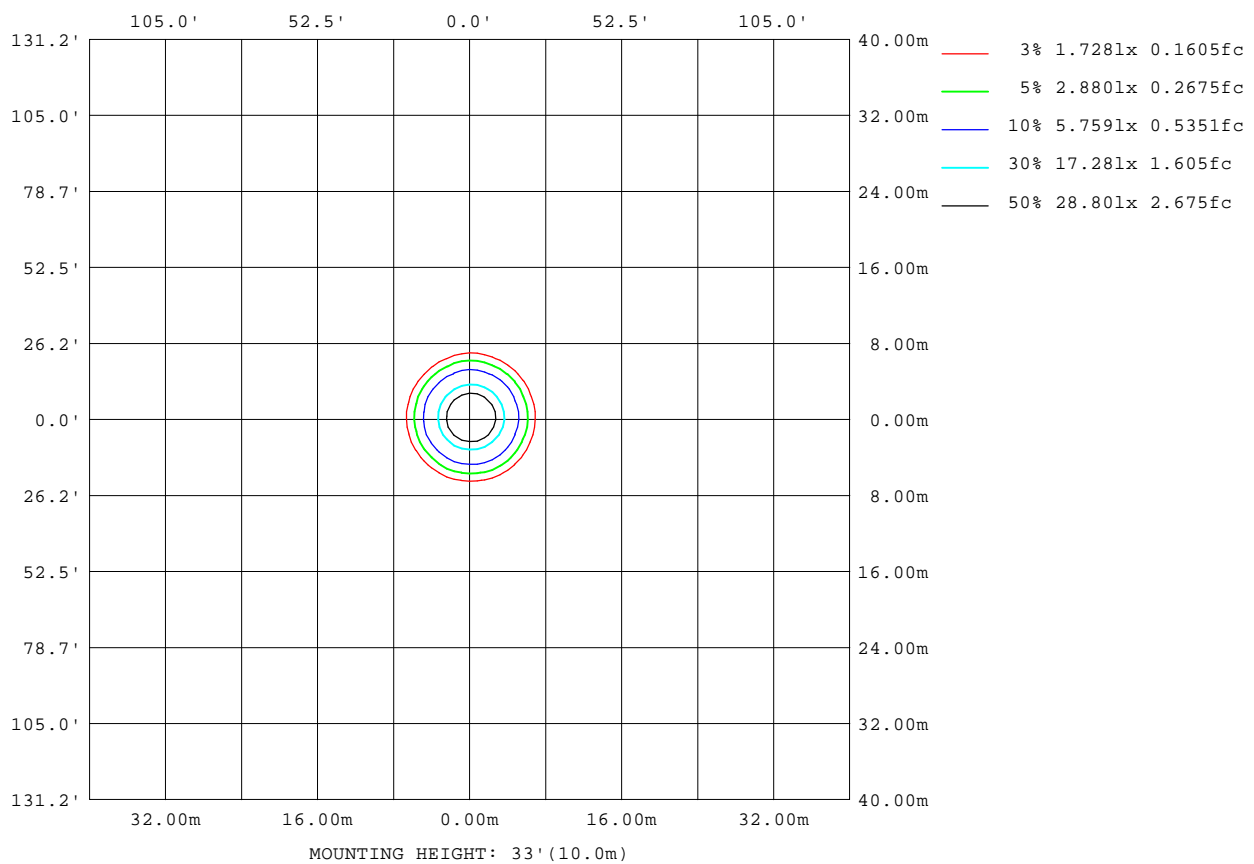
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-08-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
Humidity:65.0%
Test Distance:7.810m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

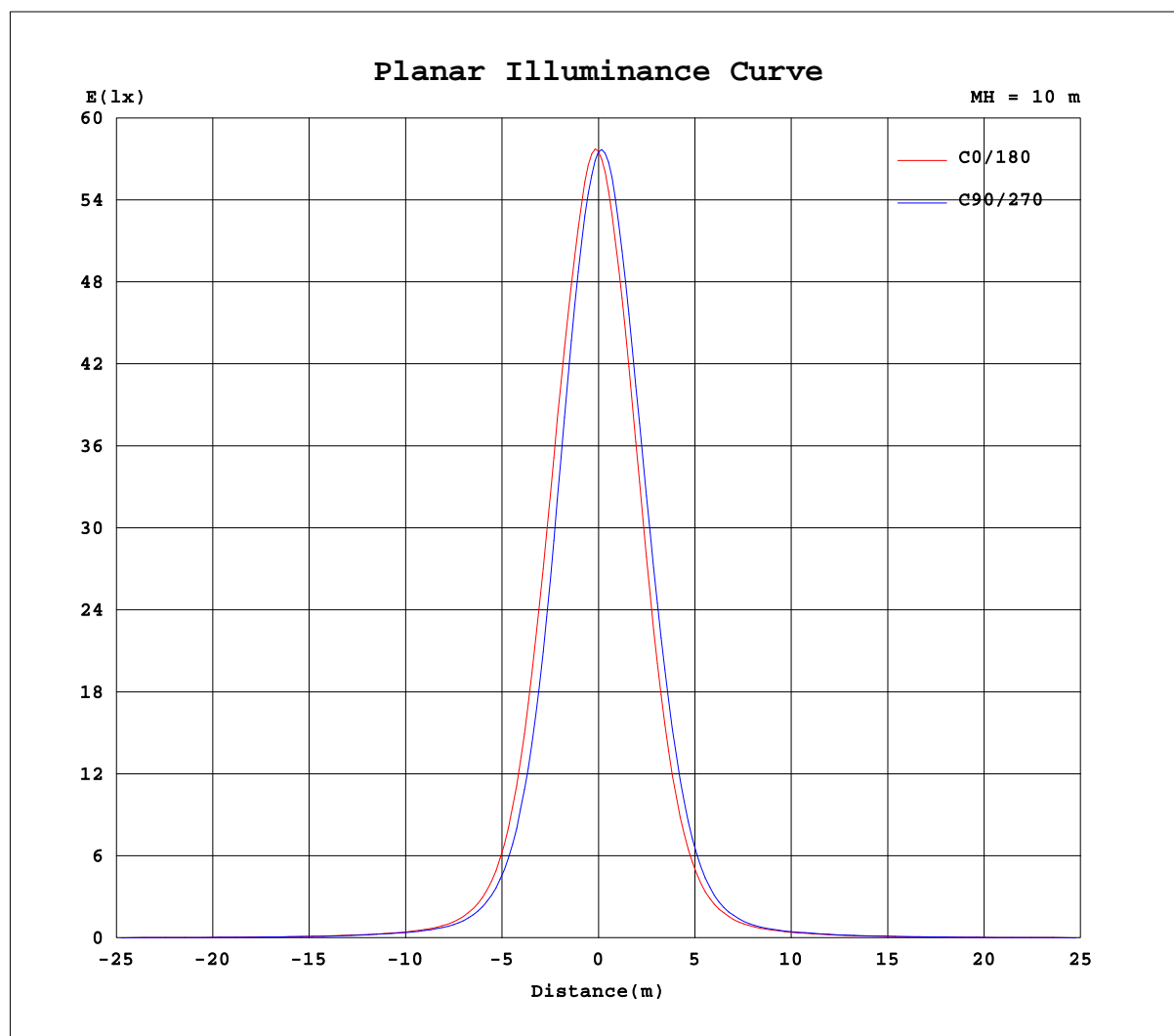
Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm		
NAME: S1-CN002(180528)	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-08-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.274
Humidity: 65.0%
Test Distance: 7.810m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-08-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.274
Humidity: 65.0%
Test Distance: 7.810m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:228.8V I:0.1503A P:34.22W PF:0.9955 Lamp Flux:2184.65x1 lm		
NAME: S1-CN002(180528)	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	5759	5756	5752	5767	5759	5756	5752	5767										
5	5438	5329	5154	5082	5169	5275	5482	5578										
10	4522	4245	3992	3949	4087	4246	4508	4706										
15	3293	2921	2607	2605	2791	3031	3294	3495										
20	2067	1727	1494	1496	1651	1882	2096	2236										
25	1090	917	793	780	871	992	1142	1215										
30	542	476	412	406	447	498	573	601										
35	289	264	233	228	247	269	304	310										
40	176	163	153	153	162	171	183	185										
45	128	121	116	116	120	127	134	133										
50	99.7	95.7	92.5	92.0	94.5	99.2	106	103										
55	79.5	75.6	72.4	73.2	75.0	79.2	83.0	83.5										
60	63.8	60.0	57.6	57.2	59.2	63.2	66.5	64.9										
65	49.0	46.4	45.1	44.0	45.8	48.5	51.7	51.6										
70	36.3	34.5	33.5	32.9	35.0	36.4	38.9	38.7										
75	25.3	24.6	22.5	23.5	25.9	31.7	26.7	25.4										
80	13.9	13.1	12.2	12.7	14.1	14.9	15.6	14.6										
85	1.51	0.85	0.02	0.15	1.14	1.68	2.67	2.23										
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
140	0.89	1.22	1.63	1.72	0.92	0.63	0.18	0.07										
145	2.58	2.87	3.19	3.29	2.60	2.34	1.97	1.84										
150	3.91	4.12	4.30	4.45	3.90	3.70	3.44	3.36										
155	4.77	4.84	4.90	5.13	4.73	4.61	4.53	4.44										
160	5.10	4.98	4.99	5.25	4.95	5.00	5.10	5.01										
165	4.99	4.70	4.65	5.01	4.70	4.94	5.13	5.15										
170	4.58	4.25	4.21	4.66	4.26	4.50	4.85	4.97										
175	4.32	4.10	4.08	4.62	4.13	4.15	4.51	4.78										
180	4.34	4.24	4.36	4.80	4.35	4.20	4.37	4.79										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-08-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
Humidity:65.0%
Test Distance:7.810m [K=1.0000]
Remarks: