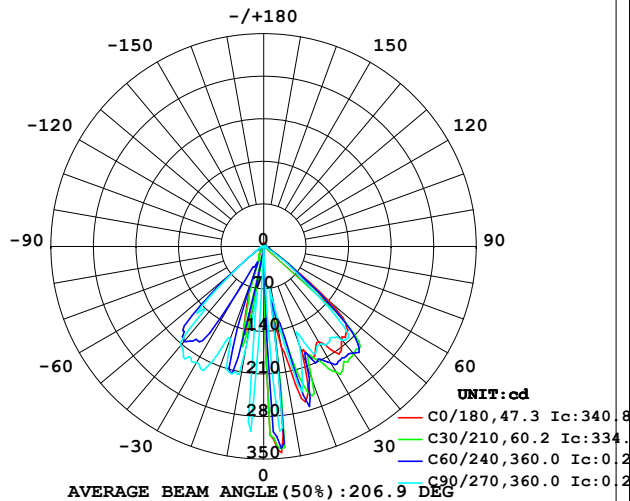


LUMINAIRE PHOTOMETRIC TEST REPORT

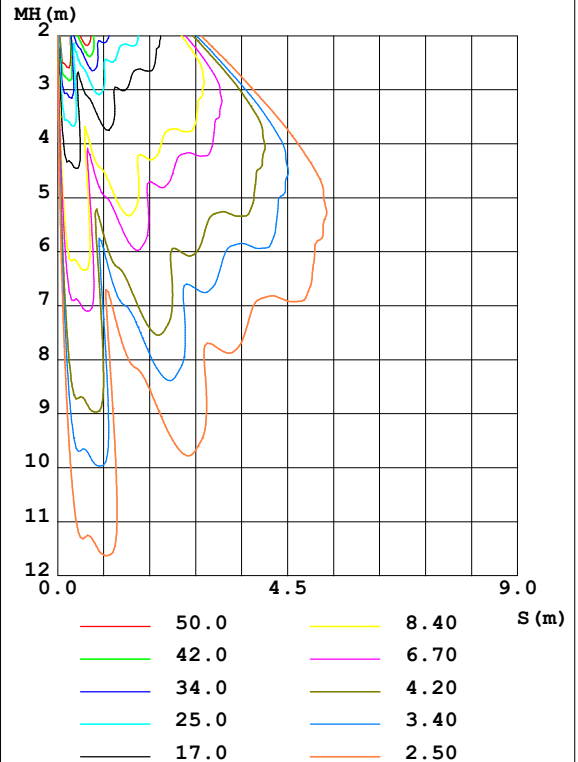
Test:U:120.3V I:0.1048A P:12.52W PF:0.9923 Freq:59.98Hz Lamp Flux:385.314x1 lm		
NAME: Outdoor lighting	TYPE: COB	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2020031902
MFR.: EVERFINE	SUR.: 3.14*0.0335*0.0335	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 30.78 lm/W			
MODEL	VSRW0412L30D1BK	I _{max} (cd)	340.8	S/MH (C0/180)	0.01
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	0.03
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	385.31	η UP, DN (C0-180)	1.8, 54.0
NOMINAL FLUX (lm)	385.314	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.7, 42.6
LAMPS INSIDE	1	η up (%)	3.4	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	120.337	η down (%)	96.6	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Leo
 Test Date: 2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.400m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

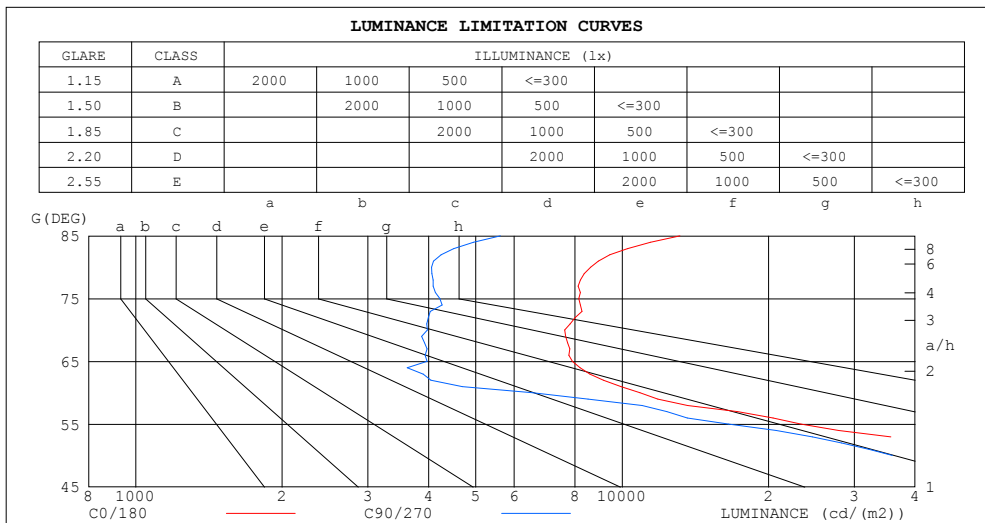
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	169.8	123.2	93.81	57.71	24.82	51.03	168.2	135.0	0- 10	10.78	10.78	2.8,2.8
20	186.2	218.7	169.5	40.42	26.07	31.05	161.6	174.8	10- 20	48.83	59.61	15.5,15.5
30	181.7	230.2	185.9	104.0	13.44	52.78	221.0	235.3	20- 30	61.66	121.3	31.5,31.5
40	200.0	229.5	201.3	105.9	5.569	106.4	212.2	237.2	30- 40	102.5	223.7	58.1,58.1
50	139.7	117.4	81.47	42.27	2.728	40.50	61.99	103.5	40- 50	103.7	327.4	85,85
60	19.17	20.04	11.52	7.713	1.408	5.568	12.33	15.87	50- 60	29.57	357.0	92.6,92.6
70	9.180	8.921	4.790	3.380	0.7021	3.755	6.531	8.609	60- 70	7.730	364.7	94.6,94.6
80	5.273	4.840	2.484	1.654	0.3027	1.370	3.300	4.851	70- 80	4.829	369.5	95.9,95.9
90	3.336	3.007	1.355	1.075	0.2911	0.9243	1.985	3.148	80- 90	2.591	372.1	96.6,96.6
100	2.651	2.473	1.243	1.139	0.4795	0.9773	1.694	2.603	90-100	1.985	374.1	97.1,97.1
110	2.184	2.256	1.358	1.424	0.7909	1.242	1.755	2.346	100-110	1.788	375.9	97.6,97.6
120	2.119	2.299	1.717	1.759	1.170	1.603	1.978	2.356	110-120	1.801	377.7	98,98
130	2.219	2.393	1.894	2.097	1.555	1.992	2.084	2.456	120-130	1.810	379.5	98.5,98.5
140	2.278	2.550	2.351	2.501	1.984	2.391	2.495	2.629	130-140	1.776	381.3	98.9,98.9
150	2.578	2.869	2.319	2.672	2.272	2.622	2.877	2.938	140-150	1.603	382.9	99.4,99.4
160	2.992	3.147	2.504	2.930	2.625	2.942	2.937	3.188	150-160	1.302	384.2	99.7,99.7
170	2.943	3.120	2.628	3.125	3.922	3.170	2.626	3.072	160-170	0.8577	385.0	99.9,99.9
180	2.166	2.034	2.019	1.978	2.166	2.033	2.019	1.977	170-180	0.2871	385.3	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Leo
 Test Date:2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.400m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.3V I:0.1048A P:12.52W PF:0.9923 Freq:59.98Hz Lamp Flux:385.314x1 lm		
NAME: Outdoor lighting	TYPE: COB	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2020031902
MFR.: EVERFINE	SUR.: 3.14*0.0335*0.0335	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	13152	5614
80	8617	4059
75	8143	4218
70	7616	3975
65	7900	3970
60	10881	6539
55	23293	16556
50	61656	35967
45	78698	75573

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Leo
Test Date: 2020-03-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.400m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:120.3V I:0.1048A P:12.52W PF:0.9923 Freq:59.98Hz Lamp Flux:385.314x1 lm					
NAME: Outdoor lighting			TYPE: COB		WEIGHT:
SPEC.: 3000K			DIM.:		SERIAL No.: 2020031902
MFR.: EVERFINE			SUR.: 3.14*0.0335*0.0335		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	.238	.136	.043	.230	.131	.042	.216	.124	.039	.202	.116	.037	.189	.110	.035	
2.0	.230	.126	.039	.224	.123	.038	.211	.117	.036	.199	.111	.035	.188	.106	.033	
3.0	.220	.117	.035	.214	.114	.034	.202	.110	.033	.192	.105	.032	.182	.101	.031	
4.0	.209	.108	.032	.203	.106	.031	.193	.102	.031	.184	.099	.030	.175	.095	.029	
5.0	.198	.101	.029	.193	.099	.029	.184	.096	.028	.175	.093	.028	.168	.090	.027	
6.0	.187	.094	.027	.183	.092	.027	.175	.090	.026	.167	.087	.026	.160	.084	.025	
7.0	.178	.088	.025	.174	.087	.025	.166	.084	.024	.159	.082	.024	.153	.079	.023	
8.0	.168	.082	.023	.165	.081	.023	.158	.079	.023	.152	.077	.022	.146	.075	.022	
9.0	.160	.077	.022	.157	.076	.021	.151	.074	.021	.145	.073	.021	.139	.071	.020	
10.0	.152	.073	.020	.149	.072	.020	.143	.070	.020	.138	.069	.020	.133	.067	.019	

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	.217	.217	.217	.185	.185	.185	.126	.126	.126	.073	.073	.073	.023	.023	.023	
1.0	.202	.183	.166	.173	.157	.143	.118	.108	.099	.068	.063	.058	.022	.020	.019	
2.0	.191	.159	.132	.163	.137	.114	.112	.095	.080	.065	.055	.047	.021	.018	.015	
3.0	.181	.141	.108	.156	.121	.094	.107	.084	.066	.062	.049	.039	.020	.016	.013	
4.0	.174	.127	.091	.149	.110	.079	.102	.076	.056	.059	.045	.033	.019	.015	.011	
5.0	.167	.116	.079	.143	.100	.069	.099	.070	.048	.057	.041	.029	.018	.013	.009	
6.0	.160	.108	.070	.138	.093	.061	.095	.065	.043	.055	.038	.026	.018	.013	.008	
7.0	.154	.101	.063	.133	.087	.055	.092	.061	.039	.053	.036	.023	.017	.012	.008	
8.0	.149	.095	.058	.128	.082	.051	.089	.058	.036	.052	.034	.021	.017	.011	.007	
9.0	.144	.090	.054	.124	.078	.047	.086	.055	.033	.050	.032	.020	.016	.011	.007	
10.0	.139	.086	.051	.120	.075	.044	.083	.053	.032	.048	.031	.019	.016	.010	.006	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Leo
Test Date: 2020-03-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.400m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.3V I:0.1048A P:12.52W PF:0.9923 Freq:59.98Hz Lamp Flux:385.314x1 lm										
NAME: Outdoor lighting					TYPE:COB			WEIGHT:		
SPEC.:3000K					DIM.:			SERIAL No.:2020031902		
MFR.: EVERFINE					SUR.:3.14*0.0335*0.0335			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	29.5	30.8	29.8	31.1	31.3	29.0	30.3	29.3	30.5	30.8
3H	29.4	30.6	29.8	30.9	31.2	28.8	30.0	29.2	30.3	30.6
4H	29.4	30.5	29.8	30.8	31.1	28.8	29.8	29.1	30.1	30.5
6H	29.4	30.4	29.7	30.7	31.0	28.7	29.7	29.0	30.0	30.3
8H	29.4	30.3	29.8	30.7	31.0	28.6	29.6	29.0	29.9	30.3
12H	29.4	30.3	29.8	30.7	31.0	28.6	29.5	29.0	29.9	30.2
4H 2H	29.3	30.4	29.7	30.7	31.0	28.8	29.9	29.1	30.2	30.5
3H	29.3	30.2	29.6	30.5	30.9	28.7	29.6	29.1	29.9	30.3
4H	29.3	30.1	29.7	30.5	30.9	28.6	29.5	29.0	29.8	30.2
6H	29.3	30.0	29.8	30.5	30.9	28.6	29.3	29.0	29.7	30.2
8H	29.3	30.0	29.8	30.4	30.9	28.6	29.2	29.0	29.7	30.1
12H	29.4	30.0	29.9	30.5	30.9	28.6	29.2	29.0	29.6	30.1
8H 4H	29.2	29.9	29.6	30.3	30.7	28.5	29.2	29.0	29.6	30.1
6H	29.3	29.8	29.8	30.3	30.8	28.6	29.1	29.0	29.6	30.1
8H	29.4	29.8	29.9	30.3	30.8	28.6	29.1	29.1	29.5	30.1
12H	29.5	29.9	30.0	30.4	30.9	28.6	29.0	29.1	29.5	30.1
12H 4H	29.1	29.8	29.6	30.2	30.7	28.5	29.1	29.0	29.6	30.0
6H	29.3	29.7	29.8	30.2	30.7	28.5	29.0	29.1	29.5	30.0
8H	29.4	29.8	29.9	30.3	30.8	28.6	29.0	29.1	29.5	30.0
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 3.4					+ 3.0 / - 4.8				
1.5H	+ 1.8 / - 3.7					+ 1.9 / - 3.9				
2.0H	+ 4.8 / - 5.0					+ 5.2 / - 6.8				

CIE Pub.117, 385.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.3)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Leo
Test Date:2020-03-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks:

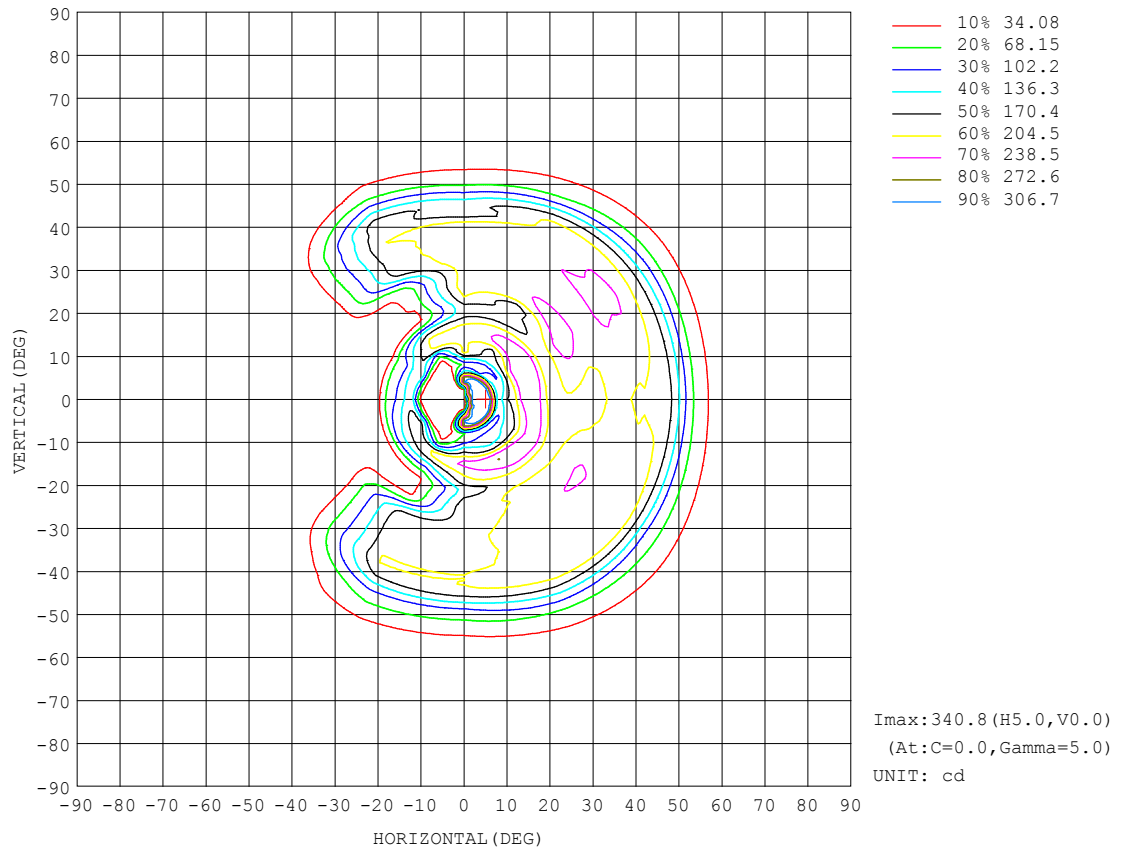
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.400m [K=1.0000]
Remarks:

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ISOCANDELA DIAGRAM

Test:U:120.3V I:0.1048A P:12.52W PF:0.9923 Freq:59.98Hz Lamp Flux:385.314x1 lm		
NAME: Outdoor lighting	TYPE: COB	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2020031902
MFR.: EVERFINE	SUR.: 3.14*0.0335*0.0335	Shielding Angle:

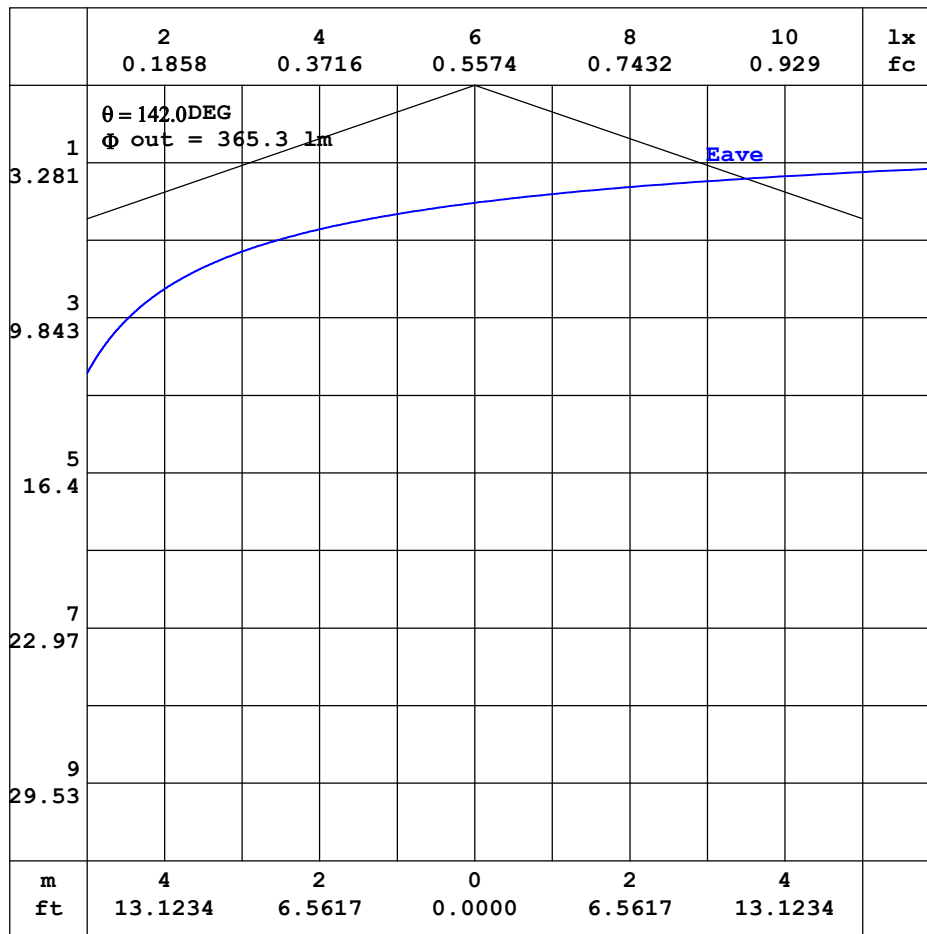


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Leo
Test Date: 2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.400m [K=1.0000]
Remarks:

AAI CURVES

Test:U:120.3V I:0.1048A P:12.52W PF:0.9923 Freq:59.98Hz Lamp Flux:385.314x1 lm		
NAME: Outdoor lighting	TYPE: COB	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2020031902
MFR.: EVERFINE	SUR.: 3.14*0.0335*0.0335	Shielding Angle:

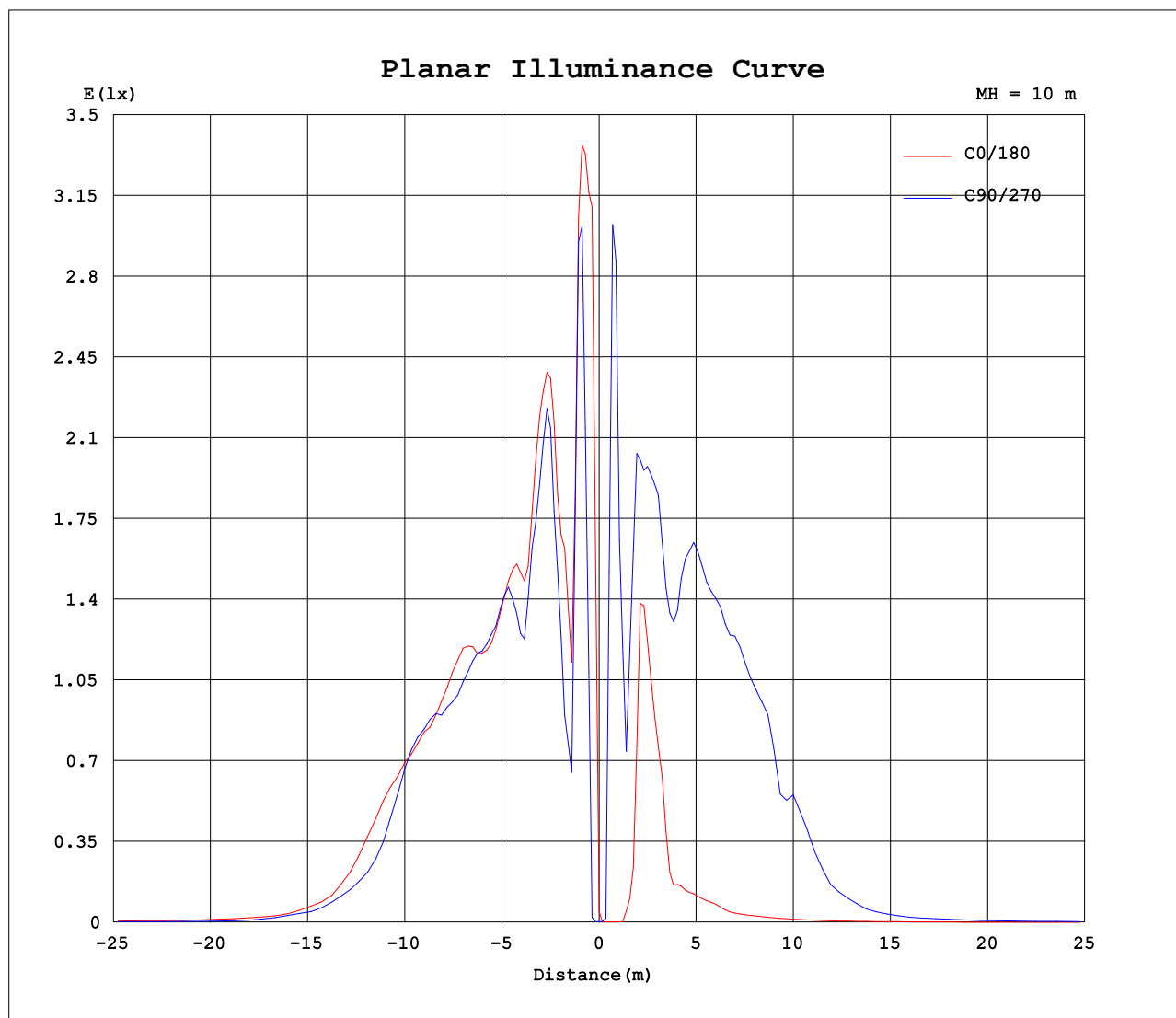


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Leo
 Test Date: 2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.400m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Leo
Test Date: 2020-03-19

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.400m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.3V I:0.1048A P:12.52W PF:0.9923 Freq:59.98Hz Lamp Flux:385.314x1 lm		
NAME: Outdoor lighting	TYPE: COB	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 2020031902
MFR.: EVERFINE	SUR.: 3.14*0.0335*0.0335	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	4.75	5.88	0.22	0.27	1.11	3.95	4.75	5.88	0.22	0.27	1.11	3.95						
5	341	334	333	305	0.25	0.23	0.18	0.21	0.97	290	333	338						
10	170	126	120	93.8	23.4	92.1	24.8	78.7	23.4	168	136	134						
15	265	217	254	247	207	157	117	105	214	215	241	264						
20	186	231	206	169	45.1	35.7	26.1	20.7	41.4	162	163	186						
25	199	205	209	195	30.6	27.6	17.3	17.1	37.2	216	166	253						
30	182	239	222	186	187	20.9	13.4	16.6	89.0	221	237	233						
35	216	231	225	190	198	10.1	7.36	10.1	189	226	233	236						
40	200	230	229	201	204	8.15	5.57	8.24	205	212	228	246						
45	196	222	214	188	170	6.24	3.96	6.38	185	156	211	207						
50	140	114	120	81.5	79.8	4.76	2.73	4.75	76.3	62.0	87.2	120						
55	47.1	51.1	48.3	33.5	31.9	3.55	1.95	3.56	24.4	24.2	32.1	42.1						
60	19.2	20.7	19.3	11.5	12.8	2.62	1.41	2.65	8.48	12.3	14.0	17.8						
65	11.8	12.4	10.6	5.91	7.11	1.97	1.00	1.92	6.33	7.47	9.56	11.7						
70	9.18	9.73	8.11	4.79	5.26	1.50	0.70	1.39	6.12	6.53	7.81	9.41						
75	7.43	7.96	6.28	3.85	4.05	1.15	0.48	1.01	3.83	5.68	6.56	7.21						
80	5.27	5.23	4.45	2.48	2.39	0.92	0.30	0.74	2.00	3.30	4.60	5.11						
85	4.04	3.99	3.38	1.72	1.62	0.75	0.24	0.58	1.43	2.39	3.70	3.96						
90	3.34	3.27	2.74	1.35	1.39	0.76	0.29	0.59	1.26	1.98	3.01	3.29						
95	3.00	2.97	2.54	1.27	1.30	0.82	0.37	0.65	1.18	1.93	2.77	2.98						
100	2.65	2.65	2.30	1.24	1.35	0.93	0.48	0.75	1.21	1.69	2.54	2.67						
105	2.36	2.46	2.19	1.29	1.43	1.06	0.62	0.89	1.29	1.70	2.43	2.45						
110	2.18	2.34	2.18	1.36	1.60	1.25	0.79	1.04	1.44	1.75	2.37	2.32						
115	2.13	2.29	2.25	1.53	1.78	1.43	0.98	1.21	1.65	1.90	2.40	2.33						
120	2.12	2.29	2.31	1.72	1.89	1.63	1.17	1.40	1.80	1.98	2.40	2.31						
125	2.15	2.34	2.34	1.85	1.99	1.84	1.37	1.62	1.97	1.91	2.47	2.33						
130	2.22	2.35	2.43	1.89	2.16	2.03	1.55	1.82	2.17	2.08	2.51	2.41						
135	2.26	2.38	2.57	2.23	2.38	2.24	1.78	2.04	2.42	2.31	2.60	2.43						
140	2.28	2.41	2.69	2.35	2.60	2.40	1.98	2.21	2.57	2.49	2.80	2.46						
145	2.37	2.53	2.84	2.30	2.71	2.50	2.14	2.34	2.61	2.76	2.92	2.59						
150	2.58	2.70	3.04	2.32	2.75	2.59	2.27	2.50	2.75	2.88	3.14	2.74						
155	2.79	2.80	3.21	2.43	2.91	2.65	2.41	2.63	2.93	2.94	3.29	2.86						
160	2.99	2.96	3.34	2.50	3.14	2.72	2.62	2.73	3.15	2.94	3.37	3.00						
165	3.07	3.10	3.35	2.62	3.13	2.85	2.90	2.89	3.22	2.69	3.33	3.12						
170	2.94	3.03	3.21	2.63	3.09	3.16	3.92	3.22	3.12	2.63	3.13	3.01						
175	2.58	2.60	2.71	2.44	2.92	3.97	6.35	3.82	2.77	2.43	2.62	2.54						
180	2.17	2.06	2.00	2.02	1.97	1.99	2.17	2.06	2.01	2.02	1.97	1.99						

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Leo
Test Date: 2020-03-19

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.400m [K=1.0000]
Remarks: