

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

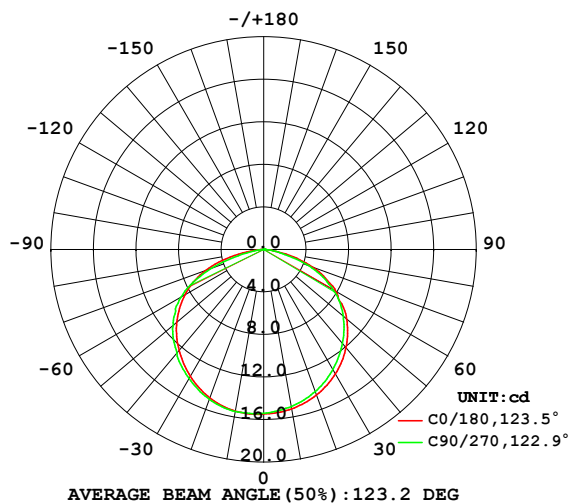
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LUMINAIRE PHOTOMETRIC TEST REPORT

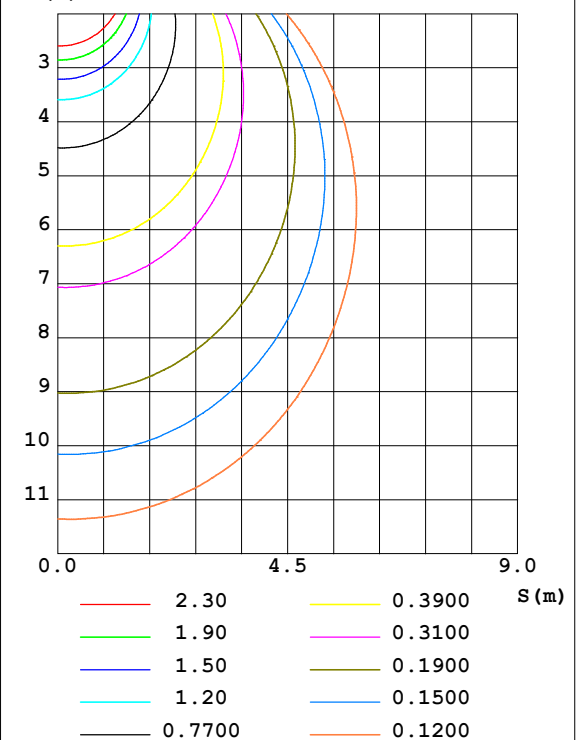
Test:U:12.00V I:0.3489A P:4.187W PF:1.000 Lamp Flux:48.7969x1 lm		
NAME: LED STRIP	TYPE:5050RGB-B	WEIGHT:
DIM.: 1000*10	SPEC.:1000*10	SERIAL No.:
MFR.: BLUEVISON		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 11.65 lm/W			
MODELS	5050L60V12RGB0IP20-10	Imax(cd)	15.56	S/MH(C0/180)	1.32
NOMINAL POWER(W)	4.186	LOR(%)	100.0	S/MH(C90/270)	1.35
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	48.797	η UP,DN(C0-180)	0.1,51.6
NOMINAL FLUX(lm)	48.7969	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.3,48.0
LAMPS INSIDE	1	η up(%)	0.4	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	12	η down(%)	99.6	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:28DEG
 Operators:KEVINLI
 Test Date:2016-07-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:8.400m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	15.44	15.54	15.48	15.26	15.21	15.08	15.00	15.17	0- 10	1.466	1.466	3,3
20	14.85	15.08	14.98	14.70	14.56	14.26	14.21	14.51	10- 20	4.242	5.708	11.7,11.7
30	13.78	14.06	14.03	13.70	13.50	13.05	13.04	13.39	20- 30	6.531	12.24	25.1,25.1
40	12.39	12.51	12.72	12.29	12.04	11.49	11.52	11.92	30- 40	8.070	20.31	41.6,41.6
50	10.68	11.19	11.08	10.52	10.21	9.696	9.777	10.27	40- 50	8.734	29.04	59.5,59.5
60	8.570	9.319	9.028	8.319	7.788	7.552	7.528	8.342	50- 60	8.416	37.46	76.8,76.8
70	5.832	6.381	5.263	5.408	4.954	4.947	4.555	5.832	60- 70	6.860	44.32	90.8,90.8
80	2.043	2.077	0.8652	1.607	1.414	1.516	1.182	2.075	70- 80	3.659	47.98	98.3,98.3
90	0.0501	0	0	0	0.0001	0.0778	0.0439	0.3598	80- 90	0.6051	48.58	99.6,99.6
100	0.0055	0.0166	0	0.0111	0.0111	0.0055	0.0166	0.1824	90-100	0.0394	48.62	99.6,99.6
110	0	0.0166	0	0.0221	0.0221	0.0055	0.0387	0.0829	100-110	0.0271	48.65	99.7,99.7
120	0.0110	0.0332	0	0.0387	0.0442	0.0055	0.0443	0.0276	110-120	0.0216	48.67	99.7,99.7
130	0.0111	0.0497	0	0.0553	0.0553	0.0111	0.0553	0.0276	120-130	0.0257	48.70	99.8,99.8
140	0.0166	0.0608	0.0111	0.0553	0.0553	0.0276	0.0608	0.0276	130-140	0.0284	48.72	99.9,99.9
150	0.0386	0.0663	0.0276	0.0553	0.0553	0.0442	0.0608	0.0332	140-150	0.0278	48.75	99.9,99.9
160	0.0497	0.0663	0.0387	0.0553	0.0553	0.0497	0.0608	0.0497	150-160	0.0234	48.78	100,100
170	0.0608	0.0663	0.0442	0.0553	0.0553	0.0553	0.0608	0.0497	160-170	0.0152	48.79	100,100
180	0.0608	0.0663	0.0497	0.0497	0.0553	0.0553	0.0608	0.0663	170-180	0.0055	48.80	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
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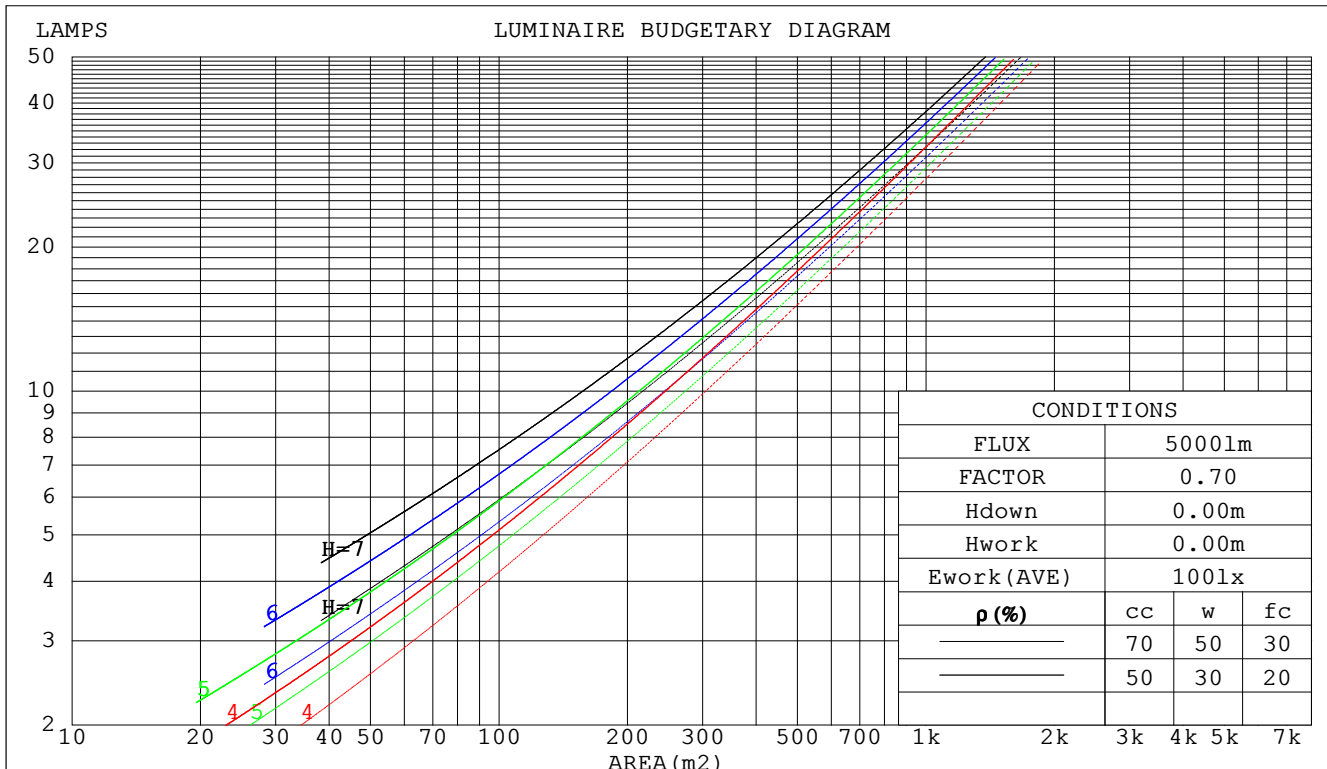
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:12.00V I:0.3489A P:4.187W PF:1.000 Lamp Flux:48.7969x1 lm		
NAME: LED STRIP	TYPE:5050RGB-B	WEIGHT:
DIM.: 1000*10	SPEC.:1000*10	SERIAL No.:
MFR.: BLUEVISON		

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	1.04	.99	.95	1.01	.97	.94	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.83	.77	.88	.81	.76	.84	.79	.74	.81	.76	.72	.78	.74	.71	.68
3.0	.78	.70	.63	.77	.69	.63	.74	.67	.61	.71	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.61	.52	.45	.60	.52	.45	.58	.50	.45	.56	.49	.44	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.45	.39	.50	.44	.38	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.40	.34	.47	.40	.34	.46	.39	.34	.44	.38	.34	.31
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.27	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.24	.35	.29	.24	.23



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 C Interval: 45.0DEG
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 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:8.400m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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WEC AND CCEC

Test:U:12.00V I:0.3489A P:4.187W PF:1.000 Lamp Flux:48.7969x1 lm		
NAME: LED STRIP	TYPE:5050RGB-B	WEIGHT:
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MFR.: BLUEVISON		

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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.312	.178	.056	.305	.174	.055	.291	.167	.053	.279	.161	.052	.268	.155	.050		
2.0	.297	.163	.050	.291	.160	.049	.279	.155	.048	.268	.150	.047	.257	.146	.046		
3.0	.276	.147	.044	.270	.145	.044	.259	.141	.043	.249	.137	.042	.240	.133	.041		
4.0	.254	.132	.039	.249	.131	.039	.240	.127	.038	.231	.124	.037	.223	.121	.037		
5.0	.235	.120	.035	.231	.118	.034	.222	.116	.034	.214	.113	.034	.207	.111	.033		
6.0	.218	.109	.031	.214	.108	.031	.206	.106	.031	.199	.104	.030	.193	.101	.030		
7.0	.202	.100	.028	.199	.099	.028	.192	.097	.028	.186	.095	.028	.180	.093	.027		
8.0	.189	.092	.026	.186	.091	.026	.180	.090	.026	.174	.088	.025	.169	.087	.025		
9.0	.177	.085	.024	.174	.085	.024	.168	.083	.024	.163	.082	.023	.159	.081	.023		
10.0	.166	.080	.022	.163	.079	.022	.158	.078	.022	.154	.076	.022	.150	.075	.022		

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.194	.194	.194	.166	.166	.166	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.184	.159	.138	.157	.137	.118	.108	.094	.082	.062	.054	.048	.020	.018	.015	
2.0	.176	.135	.101	.151	.116	.087	.104	.081	.061	.060	.047	.036	.019	.015	.012	
3.0	.169	.118	.077	.145	.102	.067	.099	.071	.047	.057	.041	.028	.018	.013	.009	
4.0	.162	.105	.061	.139	.090	.053	.095	.063	.037	.055	.037	.022	.018	.012	.007	
5.0	.154	.094	.050	.132	.082	.043	.091	.057	.031	.053	.033	.018	.017	.011	.006	
6.0	.147	.086	.042	.126	.074	.037	.087	.052	.026	.051	.031	.015	.016	.010	.005	
7.0	.140	.079	.036	.121	.069	.032	.083	.048	.022	.048	.028	.013	.016	.009	.004	
8.0	.134	.073	.032	.115	.064	.028	.080	.045	.020	.046	.026	.012	.015	.009	.004	
9.0	.128	.068	.028	.110	.059	.025	.076	.042	.018	.044	.025	.010	.014	.008	.003	
10.0	.122	.064	.026	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	

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 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:8.400m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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Uncorrected UGR Table

Test:U:12.00V I:0.3489A P:4.187W PF:1.000 Lamp Flux:48.7969x1 lm										
NAME: LED STRIP					TYPE:5050RGB-B			WEIGHT:		
DIM.: 1000*10					SPEC.:1000*10			SERIAL No.:		
MFR.: BLUEVISON										
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	15.2	16.8	15.5	17.0	17.2	15.4	17.0	15.7	17.2	17.4
3H	17.1	18.5	17.4	18.7	19.0	17.0	18.5	17.3	18.7	18.9
4H	17.7	19.1	18.1	19.4	19.6	17.5	18.8	17.8	19.1	19.4
6H	18.1	19.4	18.5	19.7	20.0	17.6	18.9	17.9	19.1	19.4
8H	18.2	19.4	18.5	19.7	20.0	17.5	18.8	17.9	19.1	19.4
12H	18.1	19.3	18.5	19.6	20.0	17.5	18.7	17.8	19.0	19.3
4H 2H	16.1	17.4	16.4	17.7	17.9	16.2	17.5	16.5	17.8	18.1
3H	18.0	19.2	18.4	19.5	19.9	18.0	19.2	18.3	19.5	19.8
4H	18.8	19.9	19.2	20.2	20.6	18.5	19.6	18.9	19.9	20.3
6H	19.3	20.3	19.7	20.6	21.0	18.7	19.7	19.1	20.0	20.4
8H	19.4	20.3	19.8	20.6	21.0	18.7	19.6	19.1	20.0	20.4
12H	19.4	20.2	19.8	20.6	21.0	18.6	19.5	19.1	19.9	20.3
8H 4H	19.1	20.0	19.5	20.4	20.8	18.8	19.7	19.3	20.1	20.5
6H	19.7	20.4	20.1	20.8	21.3	19.1	19.9	19.6	20.3	20.7
8H	19.8	20.4	20.3	20.9	21.3	19.1	19.8	19.6	20.2	20.7
12H	19.8	20.4	20.3	20.8	21.3	19.1	19.7	19.6	20.1	20.6
12H 4H	19.1	19.9	19.5	20.3	20.7	18.8	19.7	19.3	20.1	20.5
6H	19.7	20.4	20.2	20.8	21.2	19.1	19.8	19.6	20.2	20.7
8H	19.8	20.4	20.3	20.8	21.3	19.2	19.7	19.6	20.2	20.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.2 / - 0.5					+ 0.2 / - 0.6				

CIE Pub.117 Corrected 48.80 lm Total Lamp Luminous Flux. (8log(F/F0) = -10.5)

C Range: 0 - 360DEG
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:8.400m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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UTILIZATION FACTORS TABLE

Test:U:12.00V I:0.3489A P:4.187W PF:1.000 Lamp Flux:48.7969x1 lm		
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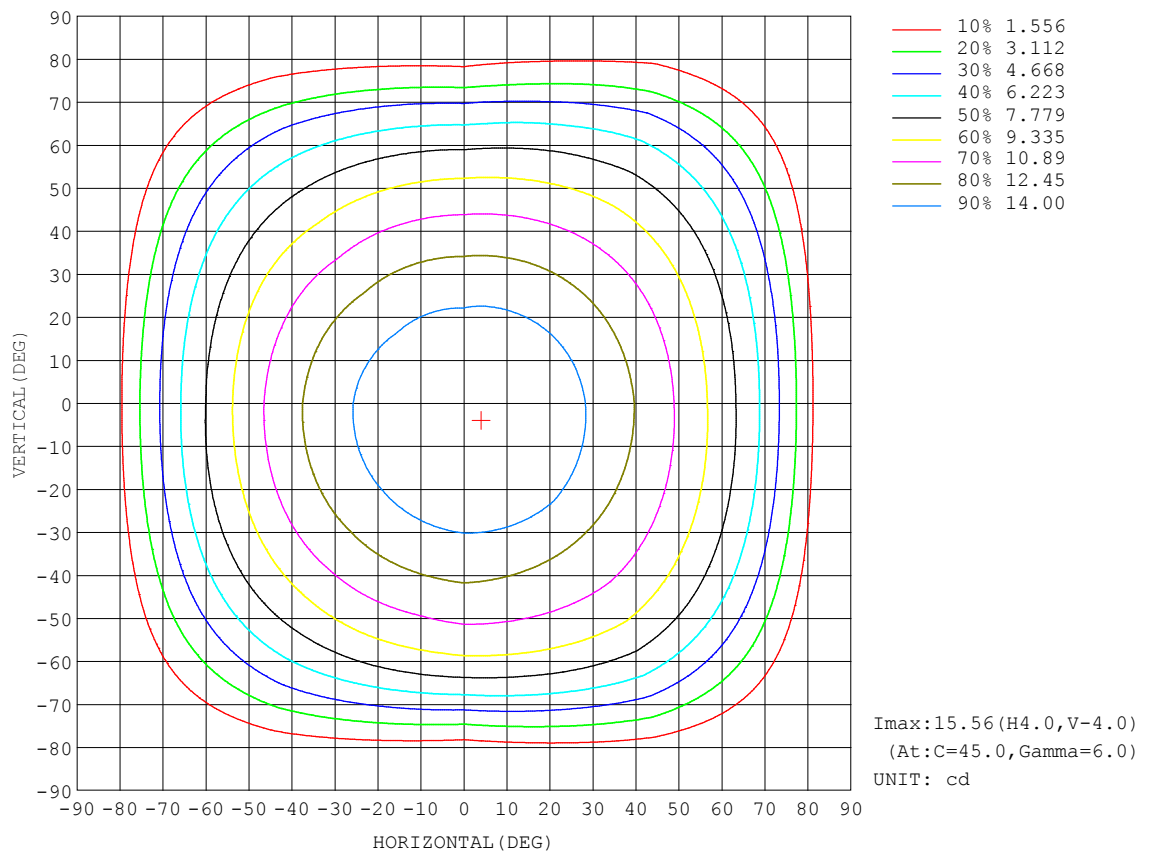
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	36	30
0.80	66	54	46	65	53	46	63	53	46	39
1.00	74	63	55	73	62	55	71	64	55	47
1.25	82	71	63	80	70	63	77	69	62	55
1.50	87	77	69	85	76	69	82	74	68	60
2.00	94	85	79	92	84	78	89	82	76	68
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	99	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	104	99	106	102	98	101	98	95	85
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
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 Remarks:

ISOCANDELA DIAGRAM

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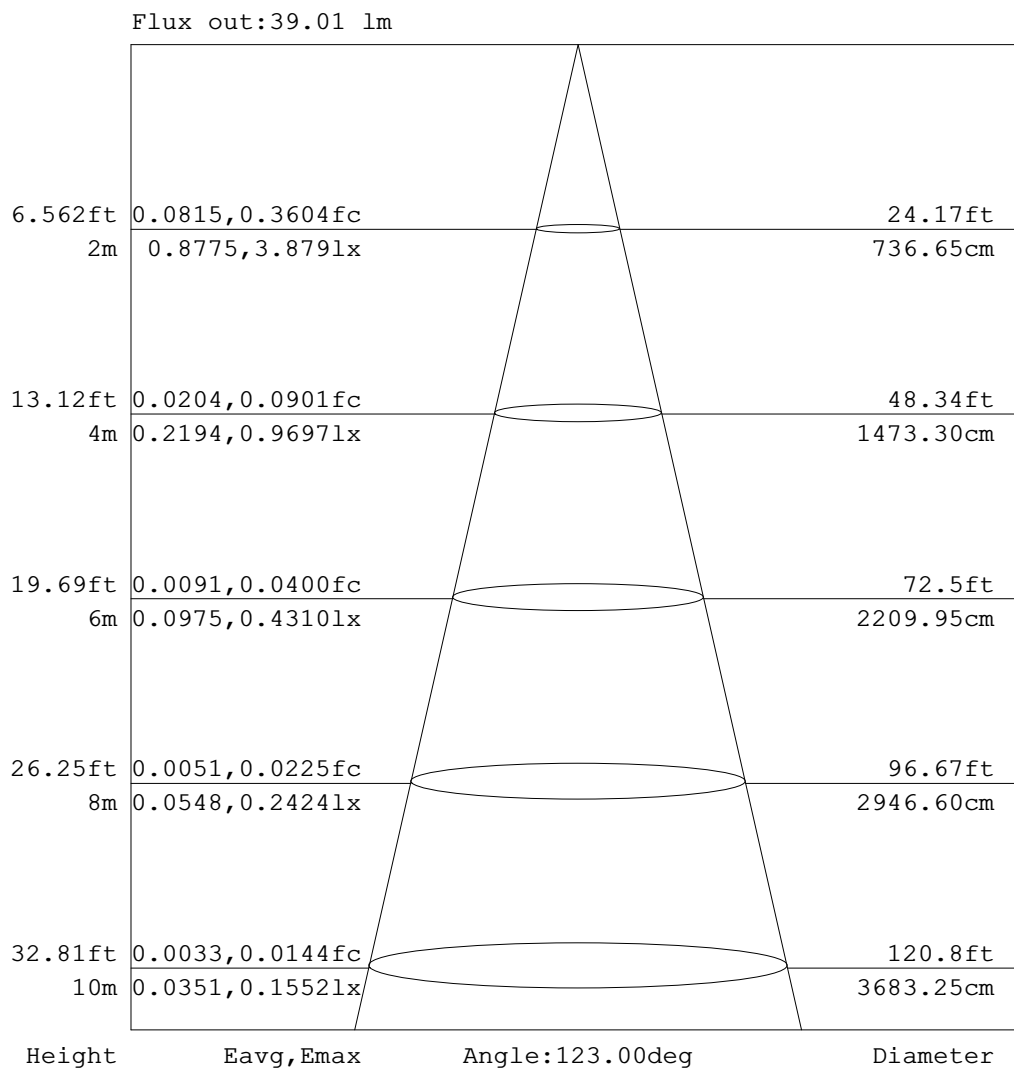


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AAI Figure

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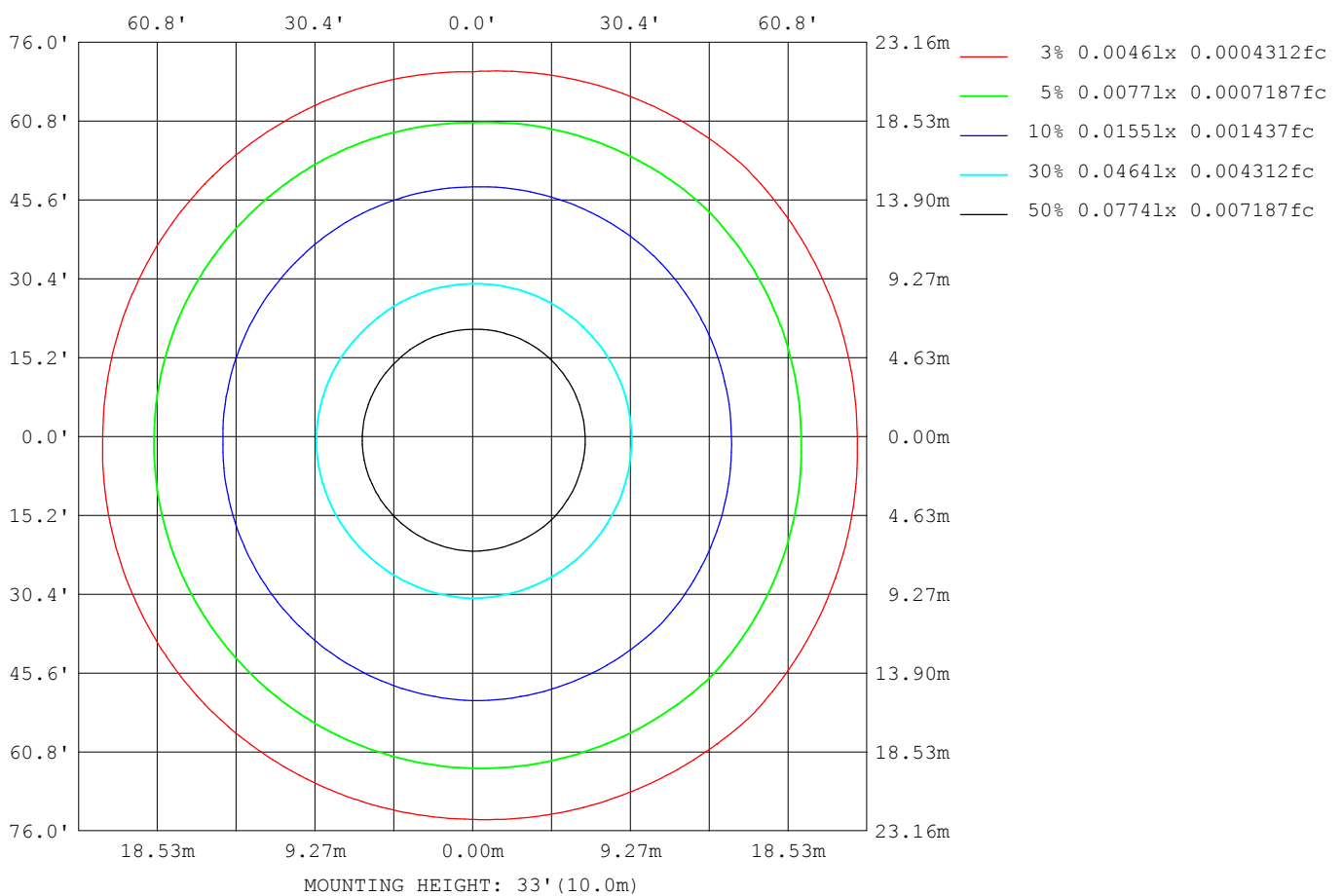
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
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ISOLUX DIAGRAM

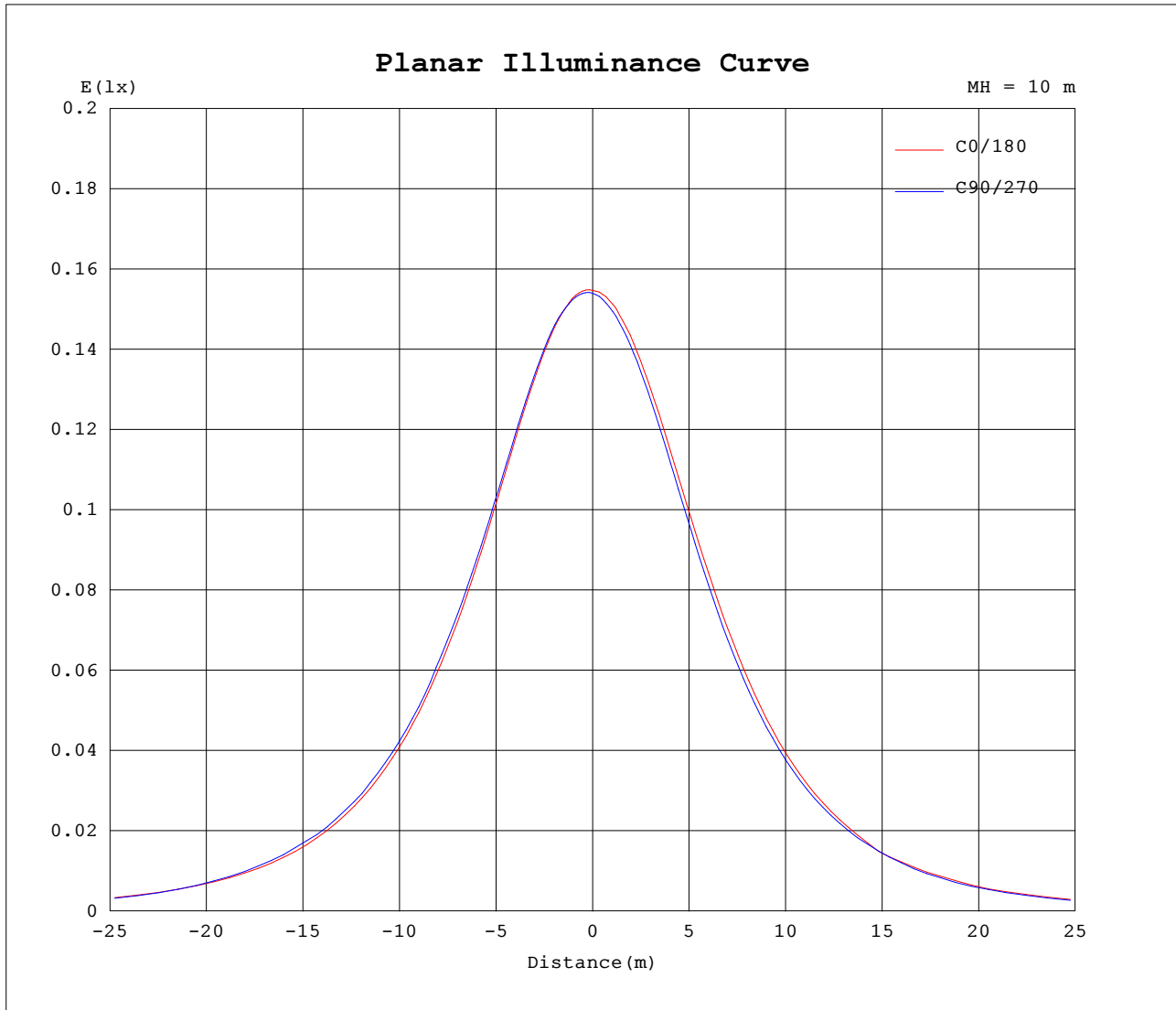
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Planar Illuminance Curve



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LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:12.00V I:0.3489A P:4.187W PF:1.000 Lamp Flux:48.7969x1 lm		
NAME: LED STRIP	TYPE:5050RGB-B	WEIGHT:
DIM.: 1000*10	SPEC.:1000*10	SERIAL No.:
MFR.: BLUEVISON		

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	15.5	15.5	15.4	15.4	15.5	15.5	15.4	15.4										
5	15.5	15.6	15.5	15.4	15.4	15.3	15.2	15.4										
10	15.4	15.5	15.5	15.3	15.2	15.1	15.0	15.2										
15	15.2	15.4	15.3	15.0	14.9	14.7	14.7	14.9										
20	14.9	15.1	15.0	14.7	14.6	14.3	14.2	14.5										
25	14.4	14.6	14.6	14.3	14.1	13.7	13.7	14.0										
30	13.8	14.1	14.0	13.7	13.5	13.1	13.0	13.4										
35	13.1	13.4	13.4	13.1	12.8	12.3	12.3	12.7										
40	12.4	12.5	12.7	12.3	12.0	11.5	11.5	11.9										
45	11.6	11.9	12.0	11.5	11.2	10.6	10.7	11.1										
50	10.7	11.2	11.1	10.5	10.2	9.70	9.78	10.3										
55	9.68	10.1	10.1	9.49	8.96	8.69	8.79	9.36										
60	8.57	9.32	9.03	8.32	7.79	7.55	7.53	8.34										
65	7.31	8.05	7.31	6.98	6.43	6.32	6.11	7.18										
70	5.83	6.38	5.26	5.41	4.95	4.95	4.56	5.83										
75	4.03	4.34	2.95	3.56	3.24	2.97	2.40	4.12										
80	2.04	2.08	0.87	1.61	1.41	1.52	1.18	2.07										
85	0.45	0.31	0.07	0.20	0.35	0.60	0.35	0.95										
90	0.05	0.00	0.00	0.00	0.00	0.08	0.04	0.36										
95	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.24										
100	0.01	0.02	0.00	0.01	0.01	0.01	0.02	0.18										
105	0.00	0.01	0.00	0.02	0.01	0.01	0.02	0.15										
110	0.00	0.02	0.00	0.02	0.02	0.01	0.04	0.08										
115	0.00	0.03	0.00	0.03	0.03	0.01	0.04	0.03										
120	0.01	0.03	0.00	0.04	0.04	0.01	0.04	0.03										
125	0.01	0.04	0.00	0.04	0.04	0.01	0.06	0.03										
130	0.01	0.05	0.00	0.06	0.06	0.01	0.06	0.03										
135	0.01	0.06	0.01	0.06	0.06	0.02	0.06	0.03										
140	0.02	0.06	0.01	0.06	0.06	0.03	0.06	0.03										
145	0.03	0.07	0.02	0.06	0.06	0.03	0.06	0.03										
150	0.04	0.07	0.03	0.06	0.06	0.04	0.06	0.03										
155	0.05	0.07	0.03	0.06	0.06	0.05	0.06	0.04										
160	0.05	0.07	0.04	0.06	0.06	0.05	0.06	0.05										
165	0.05	0.07	0.04	0.06	0.06	0.05	0.06	0.05										
170	0.06	0.07	0.04	0.06	0.06	0.06	0.06	0.05										
175	0.06	0.07	0.05	0.06	0.06	0.06	0.06	0.07										
180	0.06	0.07	0.05	0.05	0.06	0.06	0.06	0.07										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:28DEG
Operators:KEVINLI
Test Date:2016-07-30

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:8.400m [K=1.0000]
Remarks: