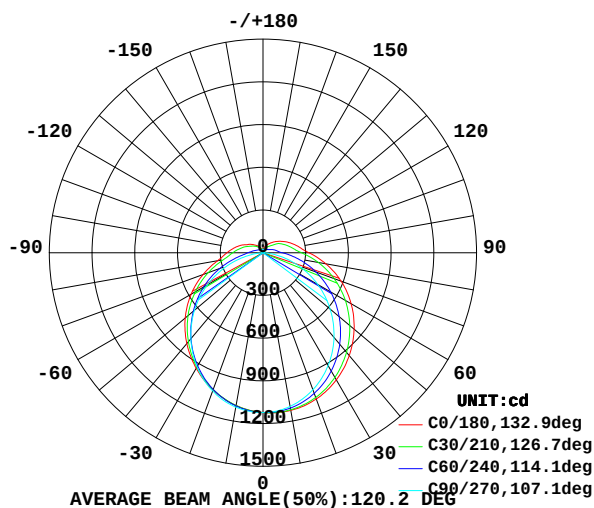


LUMINAIRE PHOTOMETRIC TEST REPORT

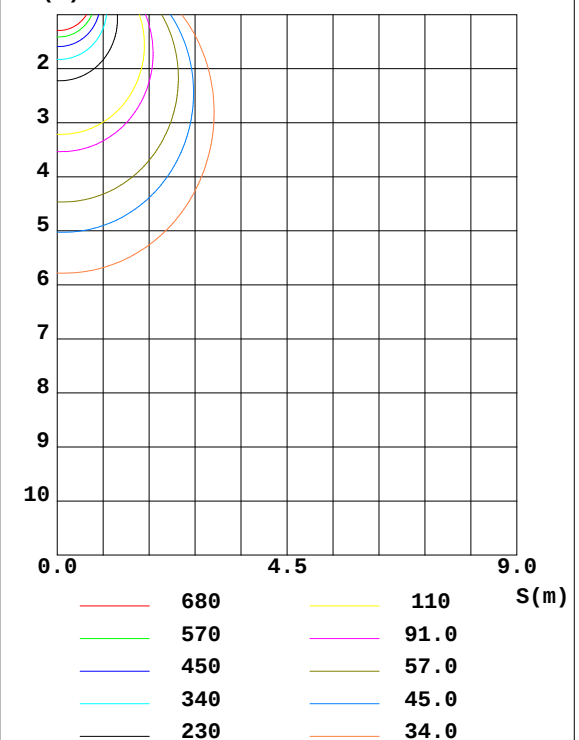
Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm		
NAME: E-B40W-CC	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.066*1.168	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 105.78 lm/W			
MODEL	E-B40W-CC	I _{max} (cd)	1128	S/MH(C0/180)	1.37
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	4167.7	η UP, DN(C0-180)	6.4, 44.2
NOMINAL FLUX(lm)	4167.72	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	6.0, 43.4
LAMPS INSIDE	1	η up(%)	12.4	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.7	η down(%)	87.6	CIBSE SHR MAX	1.35

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:DAMAN
 Test Date:2020-05-05

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [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	1124	1114	1096	1085	1089	1091	1101	1120	0- 10	106.2	106.2	2.55, 2.55
20	1093	1067	1024	1012	1026	1022	1033	1076	10- 20	304.2	410.4	9.85, 9.85
30	1031	984.7	914.9	909.0	937.8	923.0	926.1	997.1	20- 30	462.1	872.5	20.9, 20.9
40	942.2	875.5	775.9	784.6	832.1	801.2	788.2	889.0	30- 40	561.8	1434	34.4, 34.4
50	835.5	747.1	615.7	645.7	713.1	663.1	628.0	760.2	40- 50	595.3	2030	48.7, 48.7
60	714.8	608.1	443.6	499.0	583.1	515.8	451.4	618.3	50- 60	563.9	2594	62.2, 62.2
70	584.0	463.9	264.4	352.3	448.3	365.8	265.9	470.0	60- 70	476.7	3070	73.7, 73.7
80	448.2	323.3	97.74	221.2	324.0	232.2	91.60	324.4	70- 80	351.8	3422	82.1, 82.1
90	323.6	204.0	5.185	149.5	254.1	160.0	4.160	203.6	80- 90	229.4	3651	87.6, 87.6
100	253.0	150.7	5.528	111.9	203.8	120.1	5.248	150.2	90-100	159.3	3811	91.4, 91.4
110	203.8	115.8	7.824	85.02	158.9	89.68	7.546	117.9	100-110	120.3	3931	94.3, 94.3
120	160.3	88.98	10.17	65.39	118.3	67.38	9.897	89.88	110-120	87.16	4018	96.4, 96.4
130	124.0	59.28	12.58	50.21	89.41	52.64	12.42	66.09	120-130	60.47	4079	97.9, 97.9
140	93.78	43.96	15.39	38.94	65.95	40.67	14.92	49.26	130-140	39.58	4118	98.8, 98.8
150	68.98	36.90	18.09	29.86	46.68	31.11	17.77	38.72	140-150	25.20	4144	99.4, 99.4
160	48.77	30.07	20.42	23.57	30.56	23.64	20.18	31.49	150-160	14.76	4158	99.8, 99.8
170	31.81	25.38	22.15	19.92	20.06	19.67	22.04	26.55	160-170	7.290	4166	99.9, 99.9
180	19.17	21.81	22.86	22.54	19.29	21.78	22.85	22.54	170-180	2.139	4168	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		

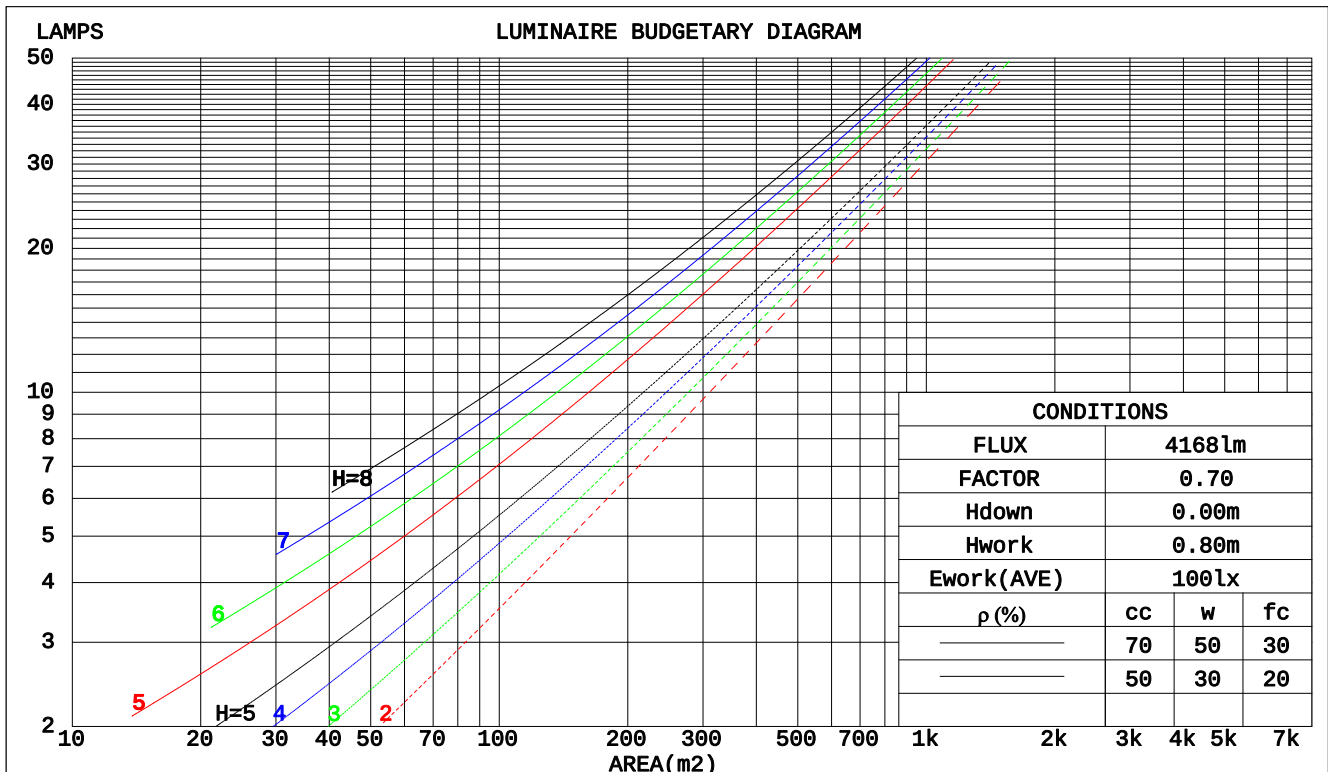
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMAN
 Test Date: 2020-05-05

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.443m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm		
NAME: E-B40W-CC	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.066*1.168	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	1.16	1.16	1.16	1.12	1.12	1.12	1.04	1.04	1.04	.97	.97	.97	.91	.91	.91	.88
1.0	.98	.93	.89	.95	.90	.86	.88	.85	.81	.82	.79	.77	.77	.74	.72	.69
2.0	.85	.77	.71	.82	.75	.69	.76	.71	.66	.71	.66	.62	.66	.63	.59	.56
3.0	.74	.65	.58	.71	.63	.57	.67	.60	.54	.62	.57	.52	.58	.53	.49	.47
4.0	.65	.56	.49	.63	.54	.48	.59	.52	.46	.55	.49	.44	.51	.46	.42	.39
5.0	.58	.49	.42	.56	.47	.41	.53	.45	.39	.49	.43	.38	.46	.41	.36	.34
6.0	.52	.43	.36	.50	.42	.36	.47	.40	.34	.44	.38	.33	.42	.36	.32	.29
7.0	.47	.38	.32	.46	.37	.31	.43	.36	.30	.40	.34	.29	.38	.32	.28	.26
8.0	.43	.34	.28	.42	.33	.28	.39	.32	.27	.37	.31	.26	.35	.29	.25	.23
9.0	.39	.31	.25	.38	.30	.25	.36	.29	.24	.34	.28	.23	.32	.27	.23	.21
10.0	.36	.28	.23	.35	.28	.22	.33	.27	.22	.32	.25	.21	.30	.24	.21	.19



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMAN
 Test Date:2020-05-05

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.443m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm								
NAME: E-B40W-CC				TYPE:40W			WEIGHT:	
DIM.:				SPEC.:5700K			SERIAL No.:1	
MFR.:				SUR.:0.066*1.168			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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.357	.203	.064	.346	.197	.063	.325	.187	.060	.307	.177	.057	.289	.168	.054	
2.0	.317	.174	.053	.307	.169	.052	.289	.161	.050	.272	.152	.048	.256	.145	.046	
3.0	.285	.152	.045	.277	.148	.045	.260	.141	.043	.245	.134	.041	.230	.128	.039	
4.0	.259	.135	.040	.251	.131	.039	.236	.125	.037	.222	.119	.036	.209	.114	.035	
5.0	.237	.121	.035	.230	.118	.034	.216	.113	.033	.204	.107	.032	.192	.103	.031	
6.0	.218	.109	.031	.212	.107	.031	.199	.102	.030	.188	.098	.029	.177	.093	.028	
7.0	.202	.100	.028	.196	.098	.028	.185	.093	.027	.174	.089	.026	.164	.085	.025	
8.0	.188	.092	.026	.182	.090	.025	.172	.086	.025	.162	.082	.024	.153	.079	.023	
9.0	.175	.085	.024	.170	.083	.023	.161	.080	.023	.152	.076	.022	.144	.073	.021	
10.0	.164	.079	.022	.160	.077	.022	.151	.074	.021	.143	.071	.020	.135	.068	.020	

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	.285	.285	.285	.243	.243	.243	.166	.166	.166	.095	.095	.095	.031	.031	.031	
1.0	.279	.251	.226	.238	.215	.194	.163	.148	.134	.094	.086	.078	.030	.028	.025	
2.0	.271	.228	.191	.232	.196	.165	.159	.136	.115	.092	.079	.067	.029	.026	.022	
3.0	.264	.211	.168	.226	.182	.146	.155	.126	.102	.090	.074	.060	.029	.024	.020	
4.0	.256	.198	.154	.220	.171	.133	.151	.119	.094	.087	.070	.056	.028	.023	.018	
5.0	.248	.188	.143	.213	.163	.125	.147	.114	.088	.085	.067	.052	.027	.022	.017	
6.0	.241	.180	.136	.207	.156	.118	.143	.109	.084	.083	.064	.050	.027	.021	.016	
7.0	.234	.173	.130	.201	.150	.114	.139	.105	.081	.081	.062	.048	.026	.020	.016	
8.0	.228	.167	.126	.196	.145	.110	.136	.102	.078	.079	.060	.047	.026	.020	.015	
9.0	.221	.163	.123	.191	.141	.107	.132	.099	.076	.077	.059	.045	.025	.019	.015	
10.0	.216	.158	.120	.186	.138	.105	.129	.097	.075	.075	.057	.045	.024	.019	.015	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMAN
Test Date:2020-05-05

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm											
NAME: E-B40W-CC					TYPE:40W			WEIGHT:			
DIM.:					SPEC.:5700K			SERIAL No.:1			
MFR.:					SUR.:0.066*1.168			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		22.7	24.1	23.1	24.5	24.9	20.8	22.2	21.3	22.6	23.1
	3H	25.0	26.3	25.5	26.8	27.3	22.3	23.6	22.7	24.0	24.5
	4H	26.3	27.6	26.8	28.0	28.5	22.8	24.1	23.3	24.5	25.0
	6H	27.7	28.8	28.2	29.3	29.9	23.2	24.4	23.7	24.9	25.4
	8H	28.4	29.5	28.9	30.0	30.6	23.3	24.4	23.8	24.9	25.5
	12H	29.3	30.3	29.8	30.9	31.4	23.3	24.4	23.9	24.9	25.5
4H	2H	23.2	24.4	23.7	24.9	25.4	21.9	23.1	22.3	23.6	24.1
	3H	25.8	26.9	26.4	27.4	28.0	23.6	24.7	24.1	25.2	25.7
	4H	27.3	28.3	27.8	28.8	29.4	24.3	25.3	24.9	25.9	26.4
	6H	28.9	29.8	29.4	30.3	30.9	24.9	25.8	25.5	26.3	27.0
	8H	29.7	30.6	30.3	31.1	31.8	25.1	25.9	25.7	26.5	27.1
	12H	30.7	31.5	31.3	32.1	32.7	25.2	25.9	25.8	26.5	27.2
8H	4H	27.6	28.4	28.2	29.0	29.7	25.2	26.0	25.8	26.6	27.2
	6H	29.5	30.2	30.1	30.8	31.5	26.1	26.8	26.7	27.4	28.1
	8H	30.5	31.1	31.2	31.8	32.5	26.5	27.1	27.1	27.7	28.4
	12H	31.7	32.3	32.4	32.9	33.7	26.8	27.3	27.4	27.9	28.7
12H	4H	27.6	28.4	28.2	29.0	29.6	25.4	26.2	26.0	26.8	27.5
	6H	29.6	30.2	30.2	30.8	31.5	26.5	27.2	27.2	27.8	28.5
	8H	30.7	31.3	31.4	31.9	32.7	27.1	27.6	27.7	28.3	29.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5					

CIE Pub.117 Corrected 4168 lm Total Lamp Luminous Flux.(8log(F/F0) = 5.0)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMAN
Test Date:2020-05-05

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm		
NAME: E-B40W-CC	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.066*1.168	PROTECTION ANGLE:

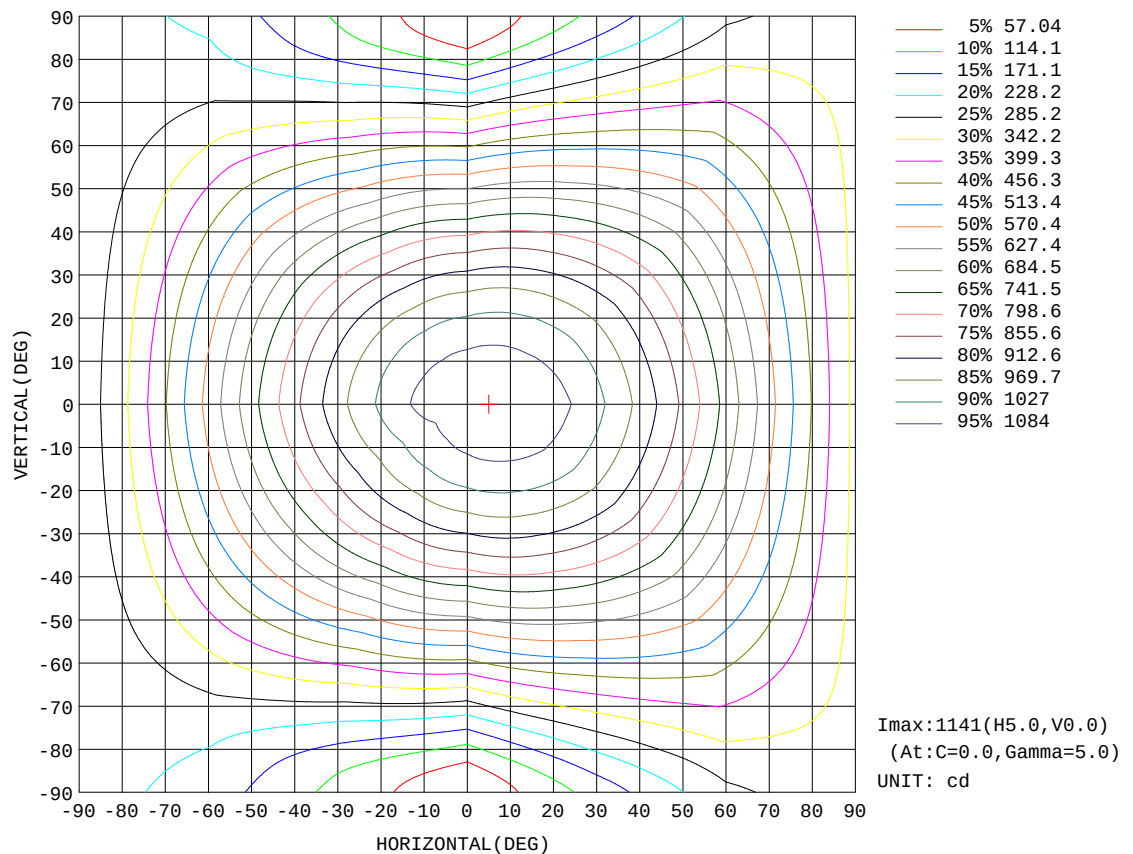
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	51	39	32	50	39	32	49	38	31	25
0.80	61	48	40	59	48	40	57	46	39	32
1.00	69	56	48	67	55	48	64	56	47	39
1.25	76	64	56	74	63	55	70	60	54	45
1.50	81	69	61	78	68	60	74	65	59	49
2.00	88	78	70	85	76	69	80	72	66	56
2.50	92	83	75	89	81	74	84	77	71	60
3.00	96	87	80	92	85	79	87	80	75	63
4.00	100	93	87	97	90	85	90	85	81	68
5.00	103	97	91	99	94	89	93	88	84	71
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMAN
Test Date:2020-05-05

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm		
NAME: E-B40W-CC	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.066*1.168	PROTECTION ANGLE:

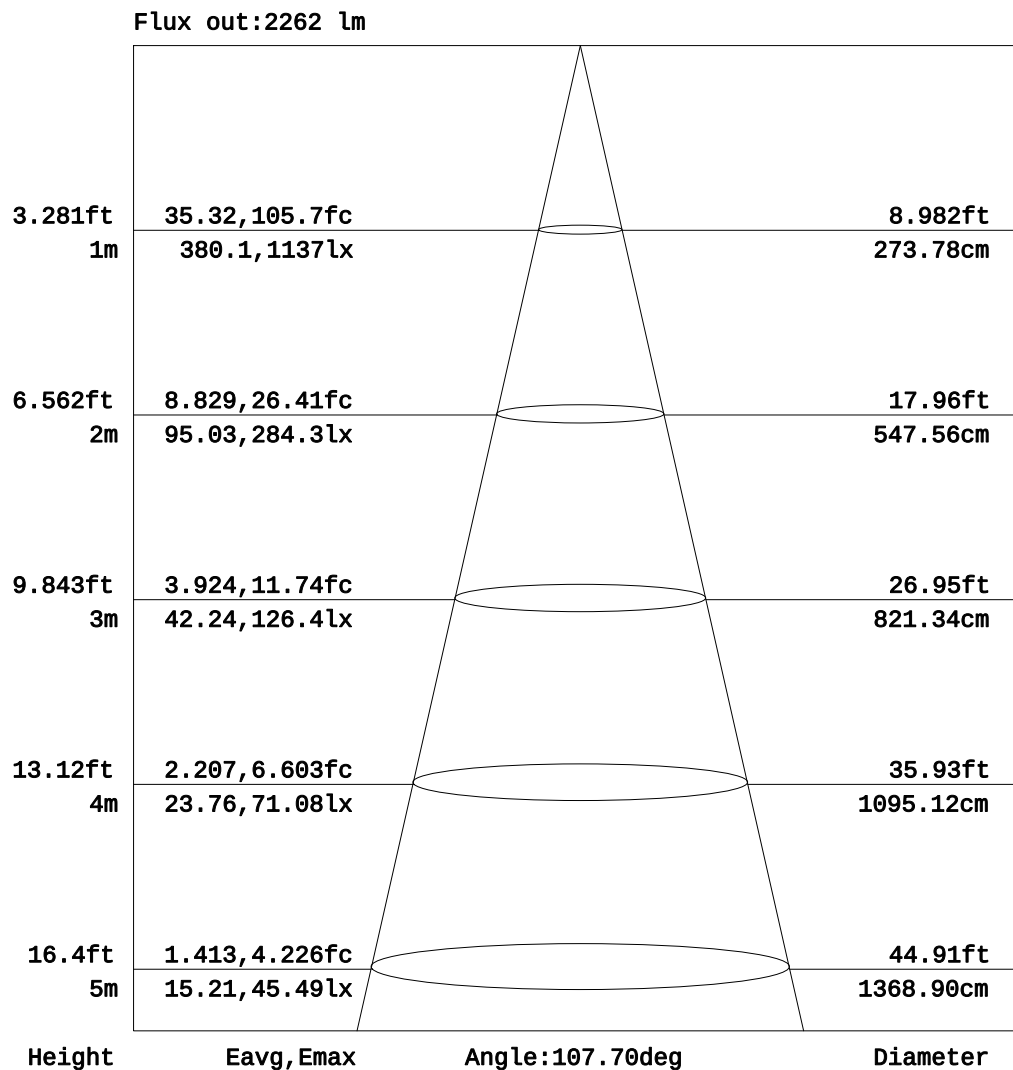


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMAN
Test Date:2020-05-05

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm		
NAME: E-B40W-CC	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.066*1.168	PROTECTION ANGLE:



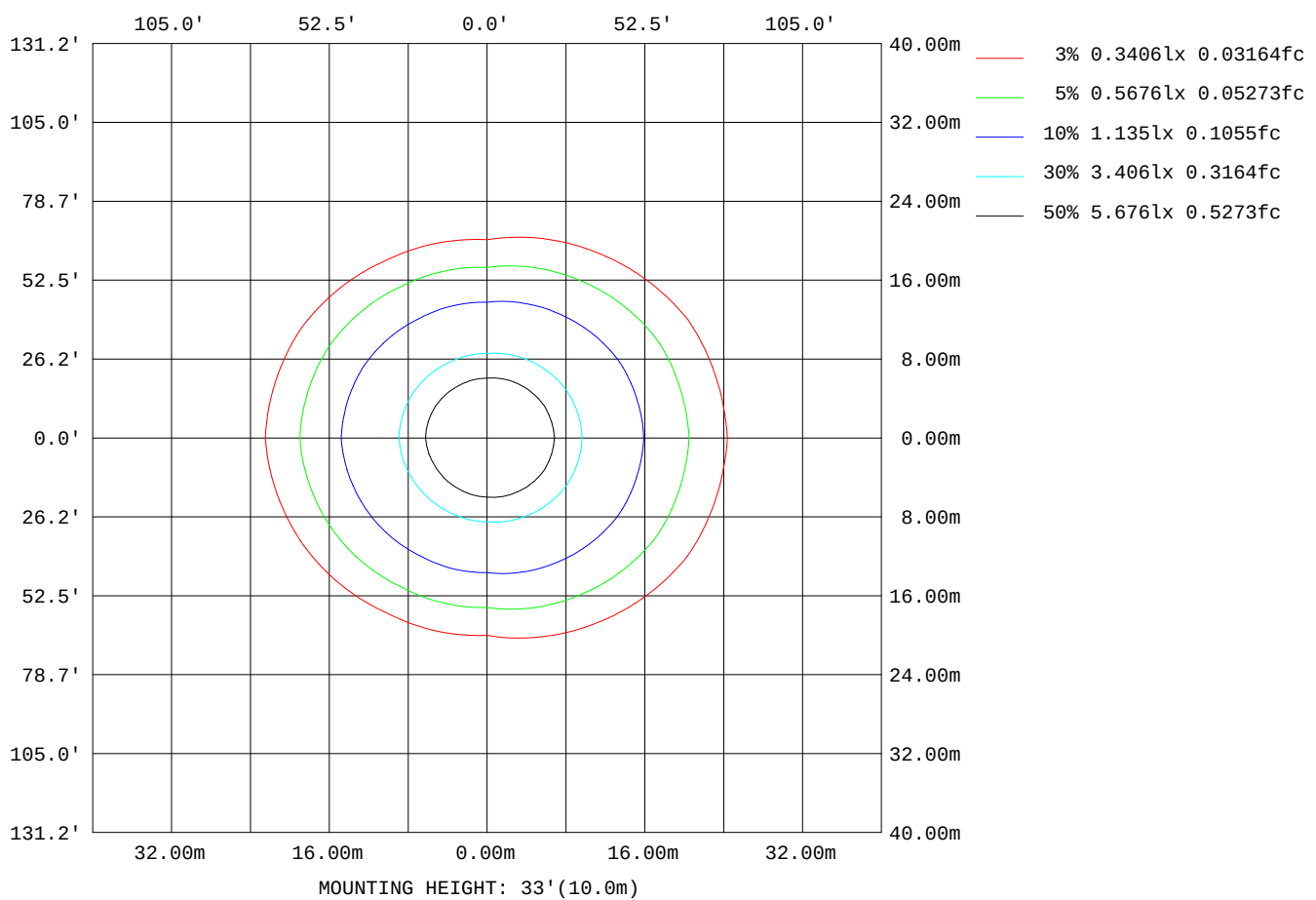
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMAN
Test Date:2020-05-05

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

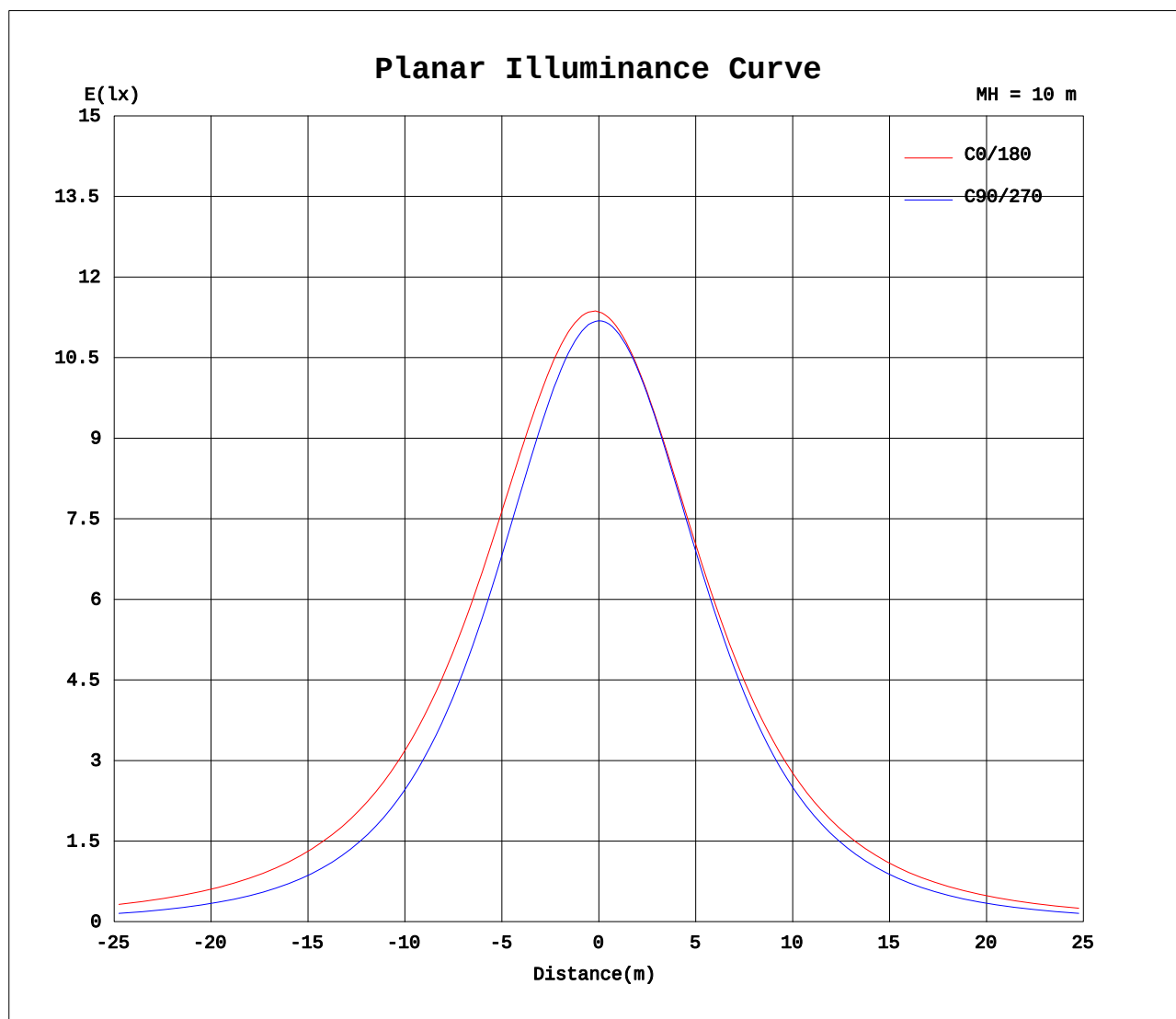
Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm		
NAME: E-B40W-CC	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.066*1.168	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMAN
Test Date:2020-05-05

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMAN
Test Date: 2020-05-05

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.443m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.7V I:0.1720A P:39.40W PF:0.9480 Lamp Flux:4167.72x1 lm					
NAME: E-B40W-CC			TYPE:40W		WEIGHT:
DIM.:			SPEC.:5700K		SERIAL No.:1
MFR.:			SUR.:0.066*1.168		PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEC) γ (DEC)	0	30	60	90	120	150	180	210	240	270	300	330						
0	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122						
5	1128	1126	1121	1116	1110	1107	1110	1111	1113	1117	1124	1128						
10	1124	1120	1108	1096	1086	1084	1089	1089	1093	1101	1115	1124						
15	1113	1105	1084	1065	1054	1053	1061	1059	1062	1073	1093	1112						
20	1093	1082	1052	1024	1011	1013	1026	1023	1022	1033	1063	1090						
25	1066	1050	1009	974	960	967	984	979	973	984	1023	1060						
30	1031	1010	959	915	903	915	938	929	917	926	973	1021						
35	990	964	902	848	838	859	887	874	855	861	916	976						
40	942	913	838	776	770	800	832	816	787	788	853	925						
45	891	856	771	698	697	736	774	753	714	710	784	869						
50	835	796	698	616	621	670	713	687	639	628	712	809						
55	777	732	624	531	544	602	649	619	561	542	636	745						
60	715	667	549	444	466	532	583	550	482	451	558	679						
65	650	600	472	354	387	463	516	479	402	359	479	610						
70	584	531	396	264	311	394	448	409	322	266	399	541						
75	516	462	322	177	238	326	384	342	248	175	321	470						
80	448	395	252	97.7	174	269	324	283	182	91.6	248	401						
85	383	328	188	33.8	123	228	282	240	132	27.3	182	335						
90	324	271	136	5.19	96.8	202	254	213	106	4.16	131	276						
95	280	231	109	4.65	79.4	179	228	189	87.9	4.37	105	235						
100	253	207	94.2	5.53	66.0	158	204	166	73.6	5.25	90.6	210						
105	227	185	81.5	6.65	55.9	139	181	147	61.4	6.39	78.8	188						
110	204	165	66.1	7.82	48.3	122	159	128	51.6	7.55	68.7	167						
115	182	147	55.1	9.00	42.4	107	134	108	45.7	8.67	58.2	149						
120	160	131	46.8	10.2	37.7	93.1	118	94.0	40.7	9.90	50.6	129						
125	141	105	41.0	11.4	33.5	81.0	104	83.0	36.7	11.1	45.0	109						
130	124	81.7	36.8	12.6	30.1	70.3	89.4	71.9	33.3	12.4	40.6	91.6						
135	108	67.7	33.6	13.8	27.8	60.8	76.5	62.3	30.1	13.7	37.1	75.0						
140	93.8	56.7	31.2	15.4	25.8	52.1	65.9	53.9	27.4	14.9	34.2	64.4						
145	80.8	51.1	31.1	16.8	24.1	44.0	55.9	46.1	25.0	16.4	31.7	54.9						
150	69.0	43.5	30.3	18.1	22.6	37.1	46.7	39.2	23.0	17.8	30.5	47.0						
155	58.4	37.1	29.6	19.3	21.0	31.7	38.5	33.0	21.1	19.0	29.6	40.1						
160	48.8	31.9	28.3	20.4	19.9	27.2	30.6	27.6	19.6	20.2	28.6	34.4						
165	40.2	28.9	26.7	21.4	18.9	22.8	24.7	23.1	18.9	21.2	27.2	30.3						
170	31.8	25.5	25.3	22.2	19.7	20.2	20.1	20.1	19.2	22.0	25.9	27.2						
175	21.8	22.3	24.0	22.6	21.3	20.3	17.9	19.2	21.3	22.7	24.5	24.8						
180	19.2	21.0	22.7	22.9	22.8	22.3	19.3	20.9	22.7	22.8	22.8	22.2						

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMAN
Test Date:2020-05-05

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.443m [K=1.0000]
Remarks: