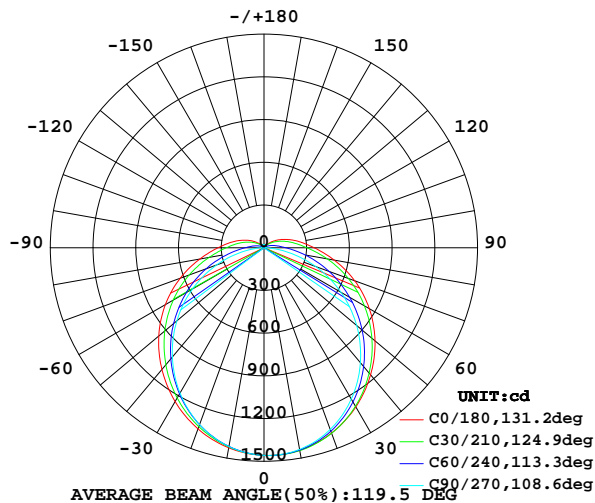


LUMINAIRE PHOTOMETRIC TEST REPORT

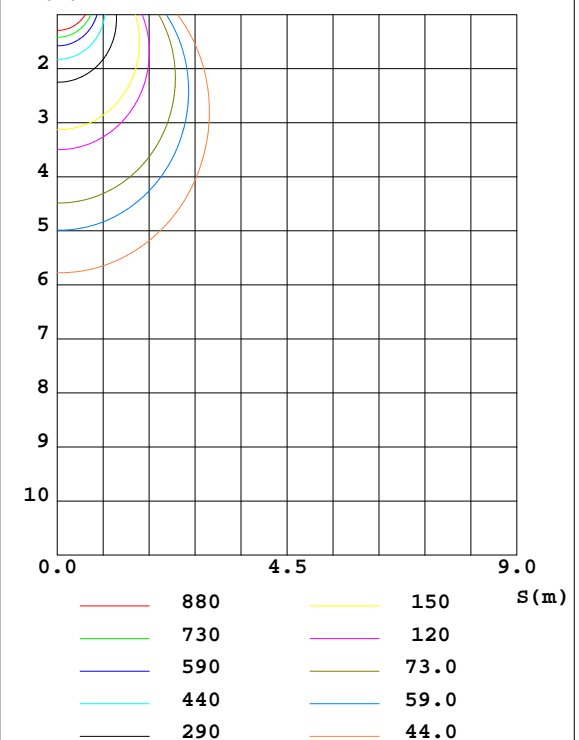
Test:U:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm		
NAME: UP-TRP08-1200-40W-A2-5000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5000K	SERIAL No.:1
MFR.:	SUR.:0.129	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 128.95 lm/W			
MODEL	UP-TRP08-1200-40W-A2-5000K	I _{max} (cd)	1460	S/MH(C0/180)	1.32
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	5158.0	η UP,DN(C0-180)	4.5,46.6
NOMINAL FLUX(lm)	5158.02	CIE CLASS	DIRECT	η UP,DN(C180-360)	4.3,44.7
LAMPS INSIDE	1	η up(%)	8.7	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	91.3	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:DAMIN
Test Date:2020-01-09

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-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	1444	1445	1438	1432	1427	1418	1418	1431	0- 10	137.9	137.9	2.67,2.67
20	1386	1379	1358	1355	1354	1330	1322	1354	10- 20	394.9	532.8	10.3,10.3
30	1290	1267	1227	1235	1248	1203	1179	1235	20- 30	599.2	1132	21.9,21.9
40	1165	1119	1054	1081	1115	1045	1001	1082	30- 40	727.5	1860	36.1,36.1
50	1018	944.4	849.3	905.3	964.8	869.2	799.1	907.4	40- 50	769.6	2629	51,51
60	853.7	754.0	623.9	715.7	799.8	683.2	580.6	720.3	50- 60	727.6	3357	65.1,65.1
70	677.8	558.8	386.2	522.8	626.4	496.5	354.0	531.0	60- 70	613.7	3970	77,77
80	501.3	372.6	156.4	342.1	457.4	323.3	139.3	352.6	70- 80	451.3	4422	85.7,85.7
90	352.7	227.8	18.09	209.3	323.4	199.7	18.07	216.6	80- 90	286.1	4708	91.3,91.3
100	251.1	146.8	14.05	133.8	231.2	128.6	15.28	140.9	90-100	180.8	4889	94.8,94.8
110	172.0	91.08	12.71	80.71	156.9	78.71	14.95	88.11	100-110	115.7	5004	97,97
120	108.5	51.29	12.78	44.40	96.71	44.51	15.38	51.30	110-120	67.49	5072	98.3,98.3
130	59.95	29.11	14.17	25.68	49.62	26.69	16.47	29.06	120-130	35.94	5108	99,99
140	27.17	18.71	16.51	19.44	23.33	20.95	18.43	20.23	130-140	18.77	5127	99.4,99.4
150	22.07	19.94	18.91	20.72	22.81	21.79	20.58	21.14	140-150	12.84	5139	99.6,99.6
160	22.51	21.25	21.04	21.90	23.11	22.58	22.19	22.16	150-160	9.944	5149	99.8,99.8
170	23.14	22.43	22.73	23.02	23.79	23.44	23.36	23.12	160-170	6.388	5156	100,100
180	23.81	23.54	23.61	23.60	23.88	23.54	23.57	23.58	170-180	2.224	5158	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

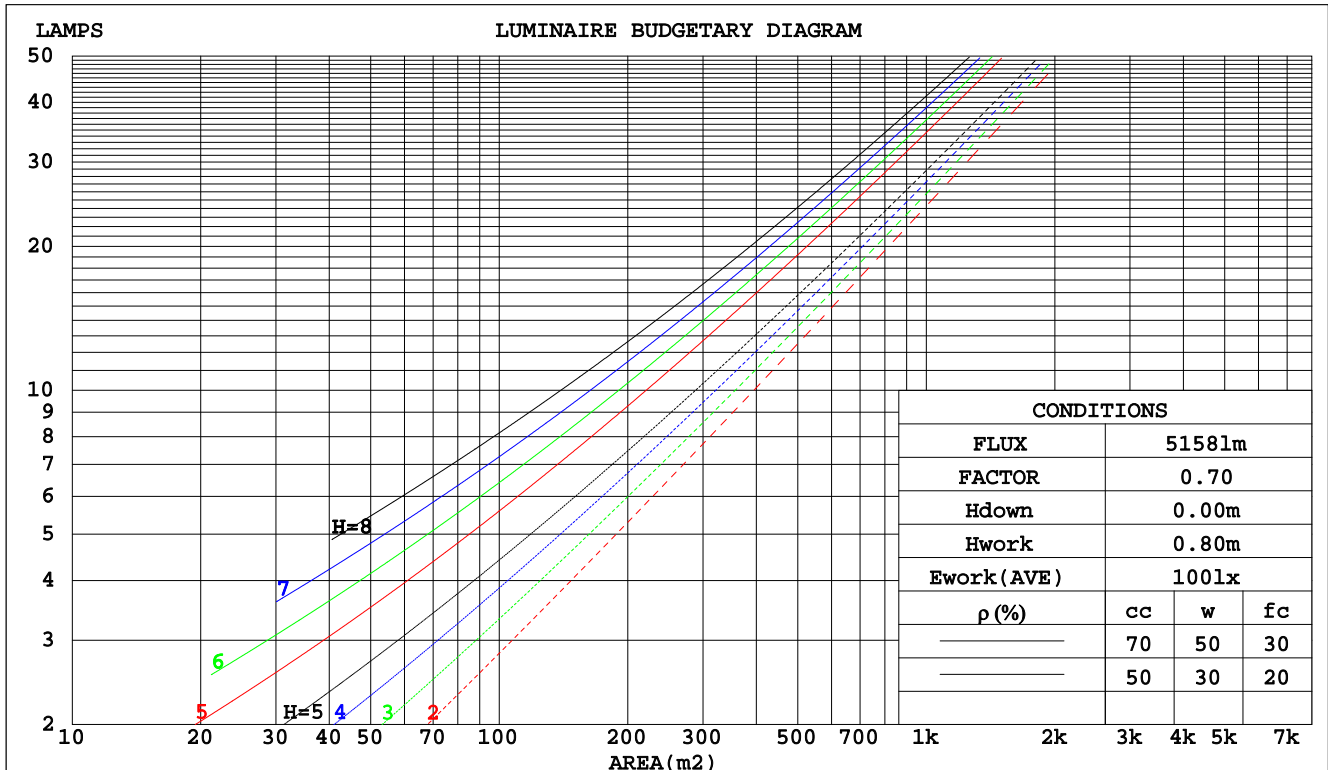
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-01-09

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE GO-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:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm		
NAME: UP-TRP08-1200-40W-A2-5000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5000K	SERIAL No.:1
MFR.:	SUR.:0.129	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						Coefficients of Utilization(CU)									
0.0	1.17	1.17	1.17	1.13	1.13	1.13	1.06	1.06	1.06	.00	.00	.00	.94	.94	.94	.91
1.0	.99	.94	.90	.96	.92	.87	.90	.86	.83	.85	.82	.79	.80	.77	.75	.72
2.0	.85	.78	.72	.83	.76	.70	.78	.72	.67	.73	.68	.64	.69	.65	.62	.59
3.0	.75	.66	.59	.72	.64	.58	.68	.61	.56	.64	.58	.53	.60	.56	.51	.49
4.0	.66	.56	.49	.64	.55	.49	.60	.53	.47	.57	.50	.45	.54	.48	.44	.41
5.0	.58	.49	.42	.57	.48	.42	.54	.46	.40	.51	.44	.39	.48	.42	.38	.35
6.0	.53	.43	.37	.51	.42	.36	.48	.41	.35	.46	.39	.34	.43	.38	.33	.31
7.0	.47	.38	.32	.46	.38	.32	.44	.36	.31	.42	.35	.30	.40	.34	.29	.27
8.0	.43	.35	.29	.42	.34	.28	.40	.33	.28	.38	.32	.27	.36	.31	.26	.24
9.0	.40	.31	.26	.39	.31	.25	.37	.30	.25	.35	.29	.24	.34	.28	.24	.22
10.0	.37	.28	.23	.36	.28	.23	.34	.27	.22	.33	.26	.22	.31	.25	.21	.20



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-09

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

WEC AND CCEC

Test:U:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm		
NAME: UP-TRP08-1200-40W-A2-5000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5000K	SERIAL No.:1
MFR.:	SUR.:0.129	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	.359	.204	.065	.349	.199	.063	.331	.190	.061	.314	.181	.058	.298	.173	.056		
2.0	.319	.175	.054	.310	.171	.053	.294	.163	.051	.278	.156	.049	.264	.150	.047		
3.0	.287	.153	.046	.279	.150	.045	.265	.143	.044	.251	.137	.042	.238	.132	.041		
4.0	.261	.136	.040	.254	.133	.039	.240	.128	.038	.228	.122	.037	.217	.118	.036		
5.0	.239	.122	.035	.232	.119	.035	.220	.115	.034	.209	.110	.033	.199	.106	.032		
6.0	.219	.110	.031	.214	.108	.031	.203	.104	.030	.193	.100	.029	.183	.096	.029		
7.0	.203	.100	.028	.198	.099	.028	.188	.095	.027	.179	.092	.027	.170	.088	.026		
8.0	.189	.092	.026	.184	.091	.026	.175	.088	.025	.167	.084	.024	.159	.082	.024		
9.0	.176	.085	.024	.172	.084	.024	.164	.081	.023	.156	.078	.022	.149	.076	.022		
10.0	.165	.079	.022	.161	.078	.022	.154	.075	.021	.147	.073	.021	.140	.070	.020		

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	.257	.257	.257	.220	.220	.220	.150	.150	.150	.086	.086	.086	.028	.028	.028	
1.0	.251	.223	.198	.215	.191	.170	.147	.132	.118	.084	.076	.068	.027	.024	.022	
2.0	.243	.199	.162	.208	.172	.140	.143	.119	.098	.082	.069	.057	.026	.022	.019	
3.0	.236	.182	.140	.202	.157	.121	.139	.109	.085	.080	.064	.050	.026	.021	.016	
4.0	.228	.169	.125	.196	.146	.108	.134	.102	.076	.078	.060	.045	.025	.019	.015	
5.0	.220	.159	.114	.189	.138	.099	.130	.096	.070	.075	.057	.042	.024	.018	.014	
6.0	.213	.151	.107	.183	.131	.093	.126	.092	.066	.073	.054	.039	.024	.018	.013	
7.0	.206	.144	.101	.177	.125	.088	.122	.088	.063	.071	.052	.037	.023	.017	.012	
8.0	.199	.139	.097	.171	.120	.085	.119	.084	.060	.069	.050	.036	.022	.016	.012	
9.0	.193	.134	.094	.166	.116	.082	.115	.082	.058	.067	.048	.035	.022	.016	.011	
10.0	.187	.130	.091	.161	.113	.080	.112	.079	.057	.065	.047	.034	.021	.015	.011	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-09

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

Uncorrected UGR Table

Test:U:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm										
NAME: UP-TRP08-1200-40W-A2-5000K					TYPE:40W			WEIGHT:		
DIM.:					SPEC.:5000K			SERIAL No.:1		
MFR.:					SUR.:0.129			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	21.5	23.0	21.9	23.4	23.7	20.3	21.7	20.7	22.1	22.5
3H	23.8	25.2	24.2	25.5	26.0	21.8	23.1	22.2	23.5	24.0
4H	25.0	26.3	25.4	26.7	27.1	22.4	23.7	22.8	24.1	24.5
6H	26.3	27.5	26.7	27.9	28.4	22.8	24.0	23.3	24.5	24.9
8H	26.9	28.1	27.4	28.5	29.0	23.0	24.1	23.4	24.6	25.1
12H	27.7	28.8	28.2	29.3	29.8	23.0	24.2	23.5	24.6	25.1
4H 2H	22.1	23.4	22.6	23.8	24.3	21.2	22.4	21.6	22.9	23.3
3H	24.6	25.8	25.1	26.2	26.7	22.9	24.0	23.4	24.5	25.0
4H	26.0	27.0	26.5	27.5	28.0	23.7	24.7	24.2	25.2	25.7
6H	27.5	28.4	28.0	28.9	29.4	24.3	25.2	24.8	25.7	26.3
8H	28.3	29.1	28.8	29.6	30.2	24.5	25.4	25.1	25.9	26.5
12H	29.2	30.0	29.7	30.5	31.1	24.7	25.5	25.2	26.0	26.6
8H 4H	26.3	27.2	26.9	27.7	28.3	24.4	25.3	24.9	25.8	26.4
6H	28.1	28.8	28.6	29.4	30.0	25.3	26.0	25.9	26.6	27.2
8H	29.1	29.7	29.7	30.3	30.9	25.7	26.3	26.3	26.9	27.6
12H	30.2	30.8	30.8	31.4	32.0	26.0	26.6	26.6	27.2	27.8
12H 4H	26.3	27.1	26.9	27.7	28.3	24.6	25.4	25.2	25.9	26.5
6H	28.2	28.8	28.8	29.4	30.0	25.7	26.3	26.3	26.9	27.5
8H	29.3	29.8	29.9	30.4	31.1	26.2	26.7	26.8	27.3	28.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 5158 lm Total Lamp Luminous Flux.(8log(F/F0) = 5.7)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-09

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

UTILIZATION FACTORS TABLE

Test:U:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm		
NAME: UP-TRP08-1200-40W-A2-5000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5000K	SERIAL No.:1
MFR.:	SUR.:0.129	PROTECTION ANGLE:

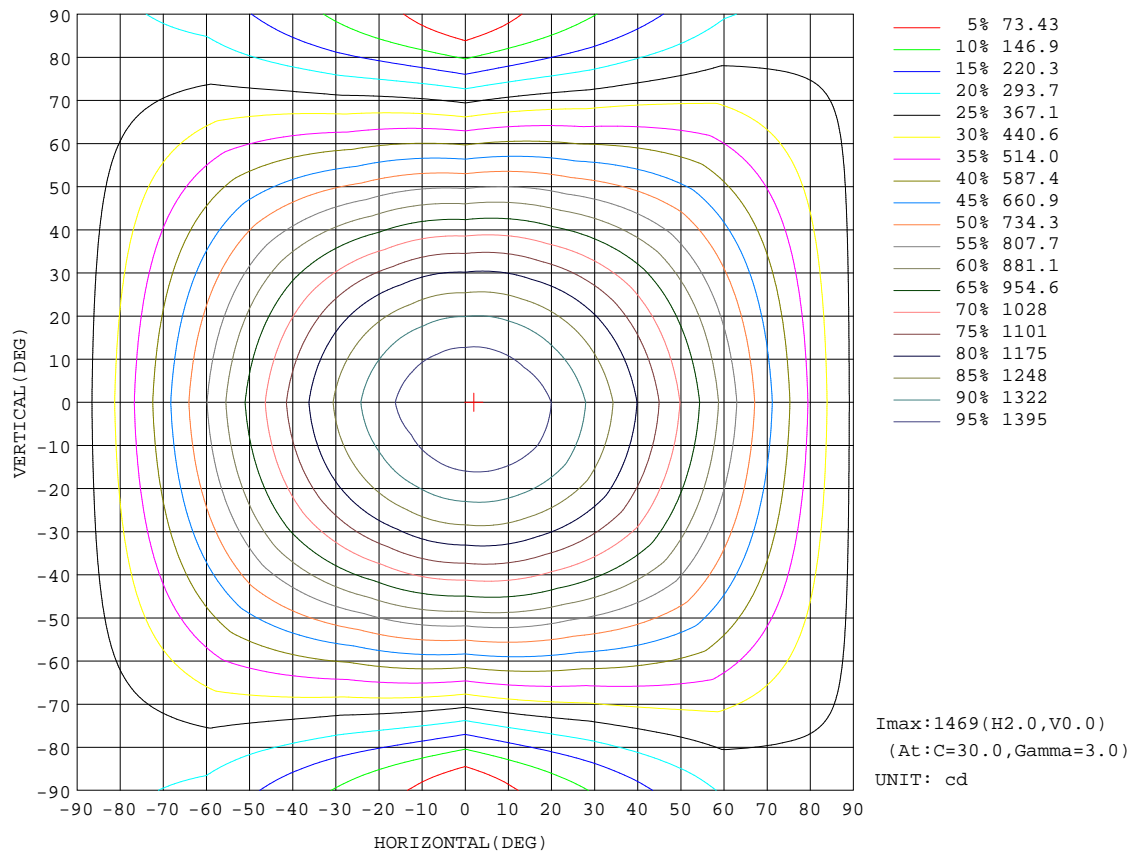
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	52	40	33	51	40	33	50	39	33	26
0.80	62	49	42	61	49	41	58	48	41	33
1.00	70	58	50	68	57	49	65	58	48	41
1.25	77	65	57	75	64	56	71	62	55	47
1.50	82	70	63	80	69	62	76	67	60	51
2.00	89	79	71	86	77	70	82	74	68	58
2.50	93	84	77	90	82	75	85	78	73	62
3.00	97	88	82	94	86	80	89	82	77	66
4.00	101	94	88	98	92	86	92	87	83	71
5.00	104	98	93	101	95	90	95	90	86	74
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:DAMIN
Test Date:2020-01-09

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

ISOCANDELA DIAGRAM

Test:U:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm		
NAME: UP-TRP08-1200-40W-A2-5000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5000K	SERIAL No.:1
MFR.:	SUR.:0.129	PROTECTION ANGLE:

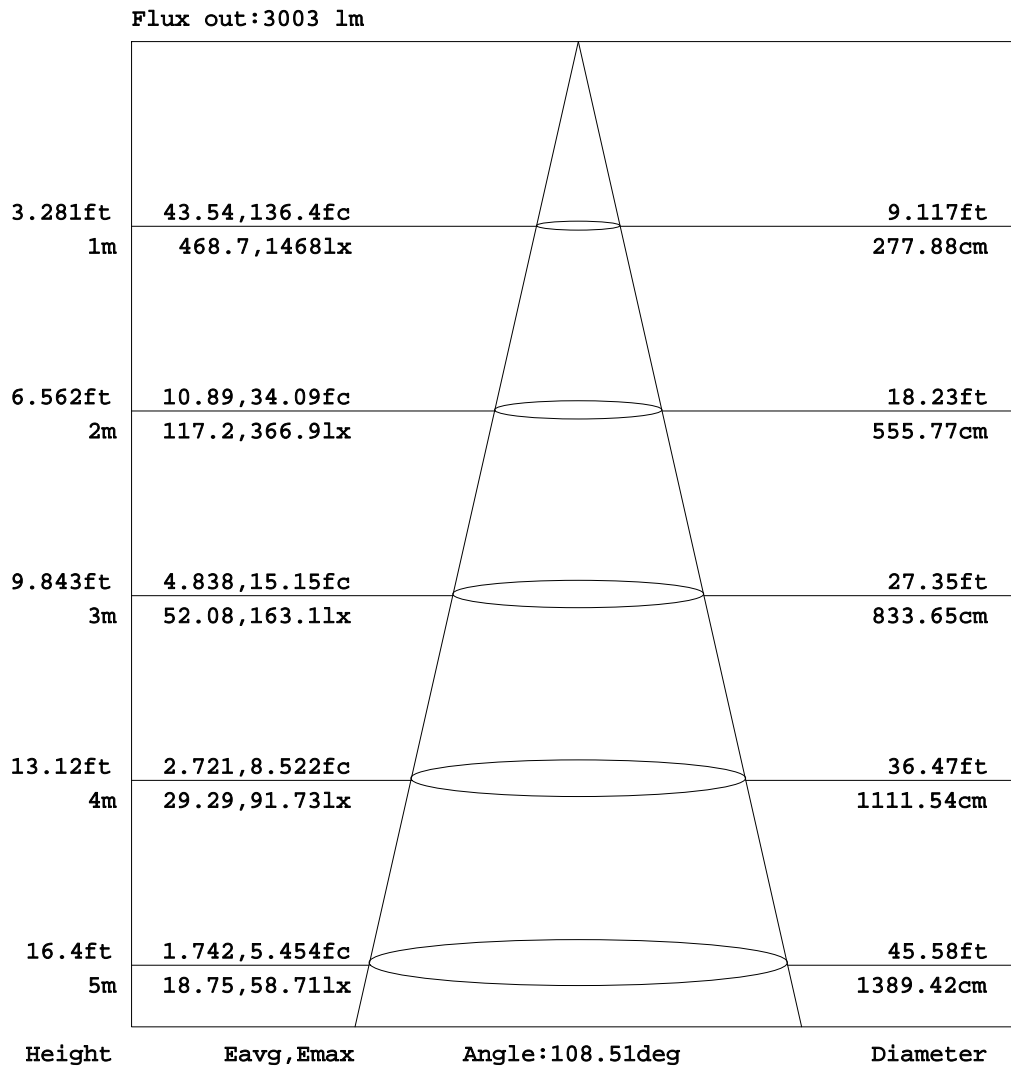


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-09

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

AAI Figure

Test:U:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm		
NAME: UP-TRP08-1200-40W-A2-5000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5000K	SERIAL No.:1
MFR.:	SUR.:0.129	PROTECTION ANGLE:



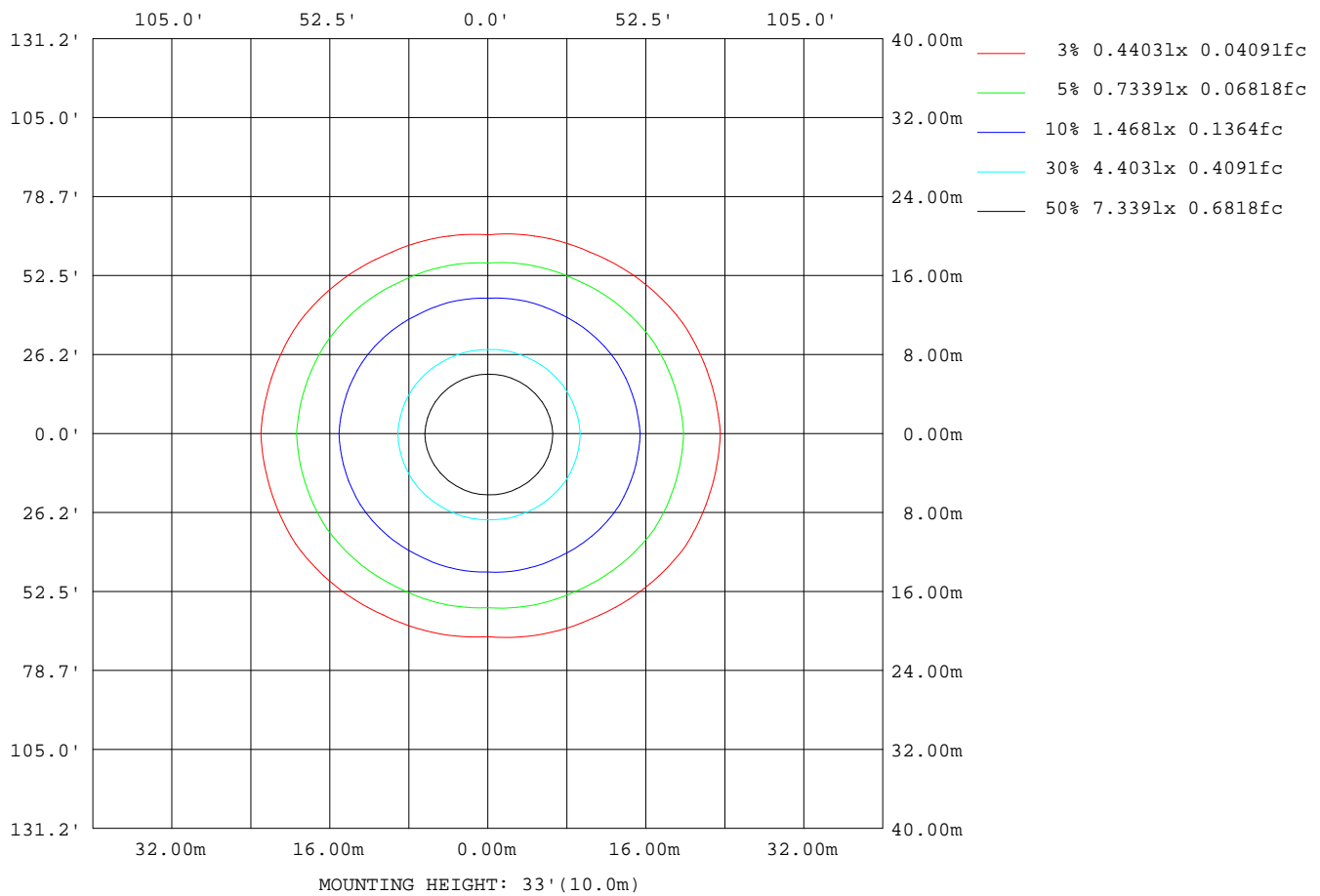
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-09

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

ISOLUX DIAGRAM

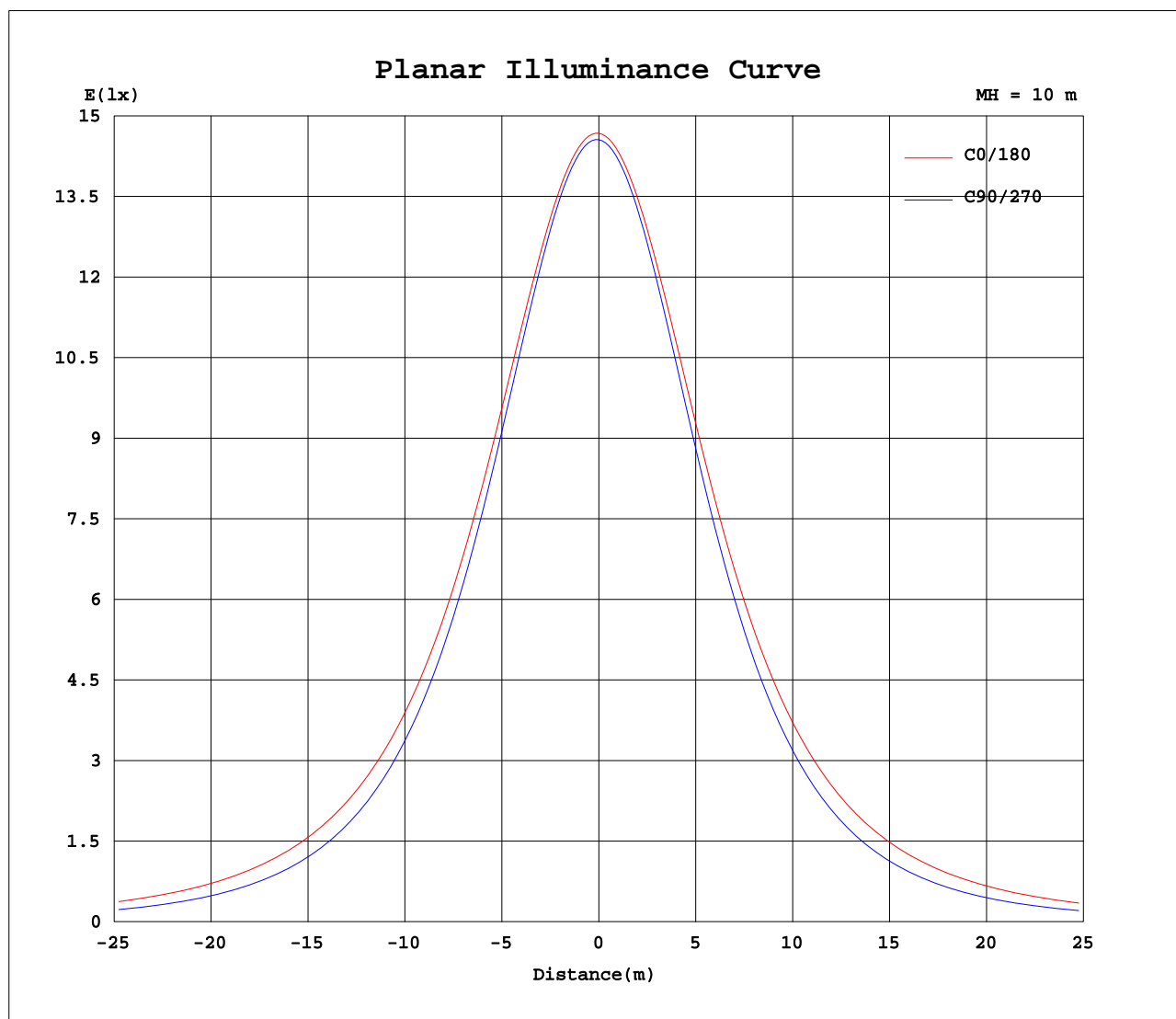
Test:U:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm		
NAME: UP-TRP08-1200-40W-A2-5000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5000K	SERIAL No.:1
MFR.:	SUR.:0.129	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-01-09

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-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: DAMIN
Test Date: 2020-01-09

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

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.0V I:0.1840A P:40.00W PF:0.9840 Lamp Flux:5158.02x1 lm		
NAME: UP-TRP08-1200-40W-A2-5000K	TYPE:40W	WEIGHT:
DIM.:	SPEC.:5000K	SERIAL No.:1
MFR.:	SUR.:0.129	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1458	1458	1458	1458	1458	1458	1458	1458	1458	1458	1458	1458							
5	1457	1459	1458	1456	1453	1451	1448	1445	1444	1446	1449	1453							
10	1444	1447	1443	1438	1433	1430	1427	1420	1417	1418	1426	1436							
15	1420	1423	1414	1405	1400	1399	1395	1384	1376	1376	1390	1408							
20	1386	1387	1371	1358	1353	1357	1354	1337	1323	1322	1341	1368							
25	1342	1341	1316	1298	1295	1305	1305	1282	1259	1256	1281	1318							
30	1290	1285	1250	1227	1226	1244	1248	1219	1186	1179	1211	1259							
35	1231	1221	1174	1145	1147	1176	1184	1148	1105	1094	1131	1193							
40	1165	1149	1089	1054	1061	1101	1115	1072	1018	1001	1045	1119							
45	1094	1071	997	955	969	1022	1042	992	925	903	953	1040							
50	1018	989	900	849	871	939	965	909	829	799	857	958							
55	938	903	798	739	770	853	884	823	729	691	757	873							
60	854	814	694	624	667	764	800	736	630	581	656	785							
65	767	723	590	506	564	674	713	647	531	467	555	695							
70	678	631	487	386	462	583	626	559	434	354	457	605							
75	589	539	387	267	364	494	540	473	340	243	362	516							
80	501	451	294	156	274	410	457	392	255	139	274	431							
85	421	370	214	65.5	198	335	385	321	184	57.0	200	354							
90	353	302	153	18.1	143	276	323	265	134	18.1	145	289							
95	297	250	115	15.1	106	229	274	221	101	16.4	109	238							
100	251	207	86.2	14.1	78.3	189	231	182	75.0	15.3	82.6	199							
105	210	170	63.4	13.0	56.4	154	192	148	54.9	15.0	61.9	163							
110	172	137	45.5	12.7	39.5	122	157	118	39.2	14.9	44.7	132							
115	138	107	31.3	12.6	26.7	94.4	125	91.8	27.5	15.0	31.3	104							
120	108	81.6	20.9	12.8	18.4	70.4	96.7	68.9	20.0	15.4	22.7	80.0							
125	82.3	59.9	16.6	13.3	17.2	50.4	71.0	49.8	19.1	15.8	18.8	59.0							
130	60.0	41.7	16.5	14.2	17.3	34.1	49.6	34.2	19.2	16.5	18.8	39.4							
135	41.4	26.9	16.8	15.2	17.5	22.7	34.2	23.4	19.5	17.4	19.0	27.1							
140	27.2	20.0	17.4	16.5	18.1	20.8	23.3	21.9	20.0	18.4	19.4	21.1							
145	21.9	20.2	18.3	17.7	19.0	21.2	22.7	22.1	20.6	19.6	20.0	21.1							
150	22.1	20.7	19.2	18.9	19.8	21.6	22.8	22.3	21.3	20.6	20.8	21.5							
155	22.3	21.2	20.0	20.0	20.7	22.0	22.9	22.5	21.9	21.4	21.5	21.9							
160	22.5	21.7	20.8	21.0	21.5	22.3	23.1	22.7	22.5	22.2	22.1	22.2							
165	22.8	22.1	21.6	22.0	22.2	22.7	23.5	23.1	23.1	22.9	22.7	22.7							
170	23.1	22.5	22.3	22.7	22.9	23.1	23.8	23.4	23.5	23.4	23.1	23.1							
175	23.4	22.9	22.9	23.2	23.5	23.4	23.7	23.6	23.8	23.6	23.4	23.3							
180	23.8	23.5	23.5	23.6	23.6	23.6	23.9	23.5	23.6	23.6	23.6	23.6							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-09

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