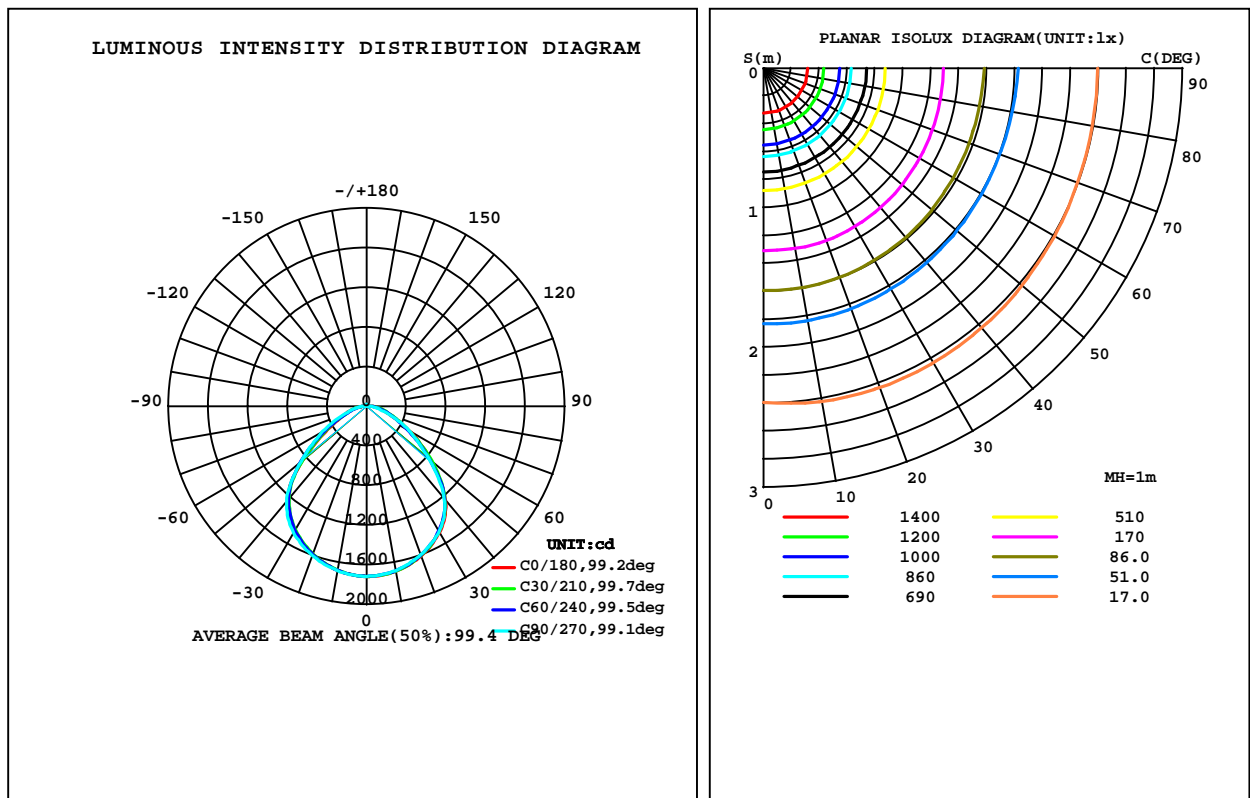


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm		
NAME: R250 (42W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.84 lm/W			
MODEL		I _{max} (cd)	1718	S/MH(C0/180)	1.27
NOMINAL POWER(W)	42	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	4232.5	h UP,DN(C0-180)	0.9,48.9
NOMINAL FLUX(lm)	4232.49	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.8,49.4
LAMPS INSIDE	1	h up(%)	1.7	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.2	h down(%)	98.3	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:03
Test Date:2019-08-24

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:60.0%
Test Distance:12.200m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	1692	1689	1684	1679	1683	1682	1687	1691	0- 10	162.4	162.4	3.84,3.84
20	1609	1603	1597	1585	1592	1590	1605	1608	10- 20	465.4	627.7	14.8,14.8
30	1472	1460	1462	1434	1456	1444	1476	1469	20- 30	707.2	1335	31.5,31.5
40	1239	1232	1224	1206	1245	1224	1260	1252	30- 40	847.8	2183	51.6,51.6
50	848.6	844.3	818.3	827.4	834.6	853.4	864.8	872.4	40- 50	810.7	2994	70.7,70.7
60	503.3	485.7	493.4	445.6	427.7	462.5	514.3	497.2	50- 60	581.8	3575	84.5,84.5
70	244.5	261.5	237.3	207.8	233.0	216.1	248.5	262.5	60- 70	341.2	3916	92.5,92.5
80	133.9	131.9	98.95	103.4	92.02	101.3	100.6	129.2	70- 80	180.4	4097	96.8,96.8
90	9.993	9.374	4.705	4.209	4.126	5.159	8.323	17.12	80- 90	64.05	4161	98.3,98.3
100	4.328	4.555	4.807	4.803	4.561	4.579	4.202	4.155	90-100	4.427	4165	98.4,98.4
110	6.934	7.093	7.316	7.473	7.123	7.192	6.805	6.716	100-110	6.054	4171	98.6,98.6
120	10.11	10.29	10.65	10.82	10.18	10.34	9.904	9.846	110-120	8.561	4180	98.8,98.8
130	13.44	13.63	14.01	14.16	13.55	13.70	13.29	13.17	120-130	10.73	4191	99,99
140	16.36	16.65	17.06	17.14	16.66	16.70	16.40	16.28	130-140	11.70	4202	99.3,99.3
150	19.50	19.84	20.15	20.18	19.71	19.66	19.45	19.38	140-150	11.39	4214	99.6,99.6
160	22.47	22.66	22.87	22.82	22.56	22.44	22.30	22.30	150-160	9.779	4223	99.8,99.8
170	24.28	24.48	24.55	24.52	24.43	24.43	24.31	24.33	160-170	6.656	4230	99.9,99.9
180	24.79	24.82	24.74	24.80	24.76	24.82	24.72	24.77	170-180	2.351	4232	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

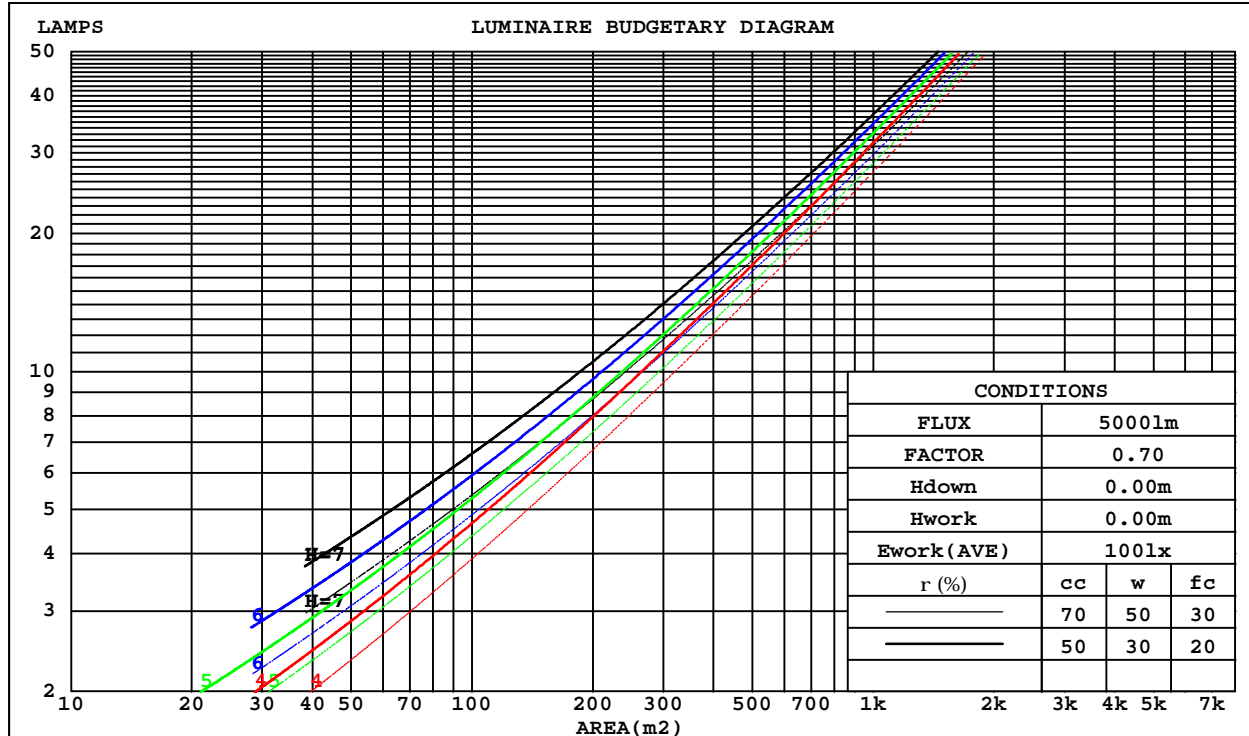
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:03
Test Date:2019-08-24

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:60.0%
Test Distance:12.200m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm		
NAME: R250 (42W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 03
 Test Date: 2019-08-24

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity: 60.0%
 Test Distance: 12.200m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm		
NAME: R250 (42W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

rcc	80%			70%			50%			30%			10%			0	
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
rfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.278	.158	.050	.271	.154	.049	.257	.147	.047	.244	.141	.045	.232	.134	.043		
2.0	.264	.145	.044	.257	.142	.044	.245	.136	.042	.234	.131	.041	.223	.126	.040		
3.0	.247	.131	.039	.241	.129	.039	.230	.125	.038	.220	.121	.037	.211	.117	.036		
4.0	.230	.120	.035	.225	.118	.035	.215	.114	.034	.206	.111	.033	.198	.108	.033		
5.0	.215	.109	.032	.210	.108	.031	.201	.105	.031	.193	.102	.030	.186	.099	.030		
6.0	.201	.101	.029	.197	.099	.029	.189	.097	.028	.182	.094	.028	.175	.092	.027		
7.0	.188	.093	.026	.184	.092	.026	.177	.090	.026	.171	.088	.025	.165	.086	.025		
8.0	.177	.086	.024	.173	.085	.024	.167	.083	.024	.161	.082	.024	.156	.080	.023		
9.0	.166	.080	.022	.163	.080	.022	.158	.078	.022	.152	.076	.022	.147	.075	.022		
10.0	.157	.075	.021	.154	.075	.021	.149	.073	.021	.144	.072	.020	.140	.070	.020		

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.203	.203	.203	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.191	.169	.150	.164	.145	.129	.112	.100	.089	.064	.058	.052	.021	.019	.017	
2.0	.182	.145	.114	.156	.125	.099	.107	.086	.069	.061	.050	.040	.020	.016	.013	
3.0	.173	.127	.091	.148	.110	.079	.102	.076	.055	.059	.045	.033	.019	.014	.011	
4.0	.165	.114	.074	.142	.098	.065	.098	.069	.045	.056	.040	.027	.018	.013	.009	
5.0	.158	.103	.063	.136	.089	.055	.093	.062	.039	.054	.037	.023	.017	.012	.008	
6.0	.151	.095	.054	.130	.082	.047	.090	.057	.033	.052	.034	.020	.017	.011	.007	
7.0	.145	.088	.048	.124	.076	.042	.086	.053	.030	.050	.031	.018	.016	.010	.006	
8.0	.139	.082	.043	.119	.071	.038	.083	.050	.027	.048	.029	.016	.016	.010	.005	
9.0	.133	.077	.039	.114	.067	.034	.079	.047	.024	.046	.028	.015	.015	.009	.005	
10.0	.127	.073	.037	.110	.063	.032	.076	.045	.023	.044	.026	.014	.014	.009	.004	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:03
Test Date:2019-08-24

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:60.0%
Test Distance:12.200m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm											
NAME: R250 (42W 4000K)					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:1			
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	17.1	18.5	17.4	18.8	19.0	16.9	18.3	17.2	18.6	18.8	
	3H	17.9	19.2	18.3	19.5	19.8	17.8	19.0	18.1	19.3	19.6
	4H	18.3	19.5	18.7	19.8	20.1	18.1	19.3	18.4	19.5	19.8
	6H	18.7	19.9	19.1	20.2	20.5	18.3	19.4	18.6	19.7	20.0
	8H	18.9	20.0	19.3	20.3	20.6	18.4	19.5	18.7	19.8	20.1
	12H	19.1	20.1	19.4	20.4	20.8	18.4	19.5	18.8	19.8	20.1
4H	2H	17.5	18.7	17.8	18.9	19.2	17.3	18.5	17.6	18.8	19.1
	3H	18.5	19.5	18.9	19.9	20.2	18.3	19.4	18.7	19.7	20.0
	4H	19.0	20.0	19.4	20.3	20.7	18.8	19.7	19.1	20.1	20.4
	6H	19.6	20.5	20.0	20.8	21.2	19.1	20.0	19.5	20.4	20.8
	8H	19.9	20.7	20.3	21.1	21.5	19.3	20.1	19.7	20.5	20.9
	12H	20.1	20.8	20.6	21.2	21.7	19.4	20.1	19.8	20.5	21.0
8H	4H	19.2	20.0	19.7	20.4	20.8	19.0	19.8	19.4	20.2	20.6
	6H	20.0	20.7	20.5	21.1	21.6	19.5	20.2	20.0	20.6	21.1
	8H	20.4	21.0	20.9	21.4	21.9	19.8	20.3	20.3	20.8	21.3
	12H	20.8	21.3	21.3	21.7	22.3	20.0	20.5	20.5	20.9	21.4
12H	4H	19.2	20.0	19.7	20.4	20.8	19.0	19.7	19.5	20.1	20.6
	6H	20.1	20.6	20.6	21.1	21.6	19.6	20.2	20.1	20.6	21.1
	8H	20.5	21.0	21.0	21.5	22.0	19.9	20.4	20.4	20.9	21.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.3					+ 0.4 / - 0.4					
1.5H	+ 0.1 / - 0.3					+ 0.1 / - 0.2					
2.0H	+ 0.5 / - 0.4					+ 0.5 / - 0.5					

CIE Pub.117 Corrected 4232 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:03
Test Date:2019-08-24

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:60.0%
Test Distance:12.200m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm		
NAME: R250 (42W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

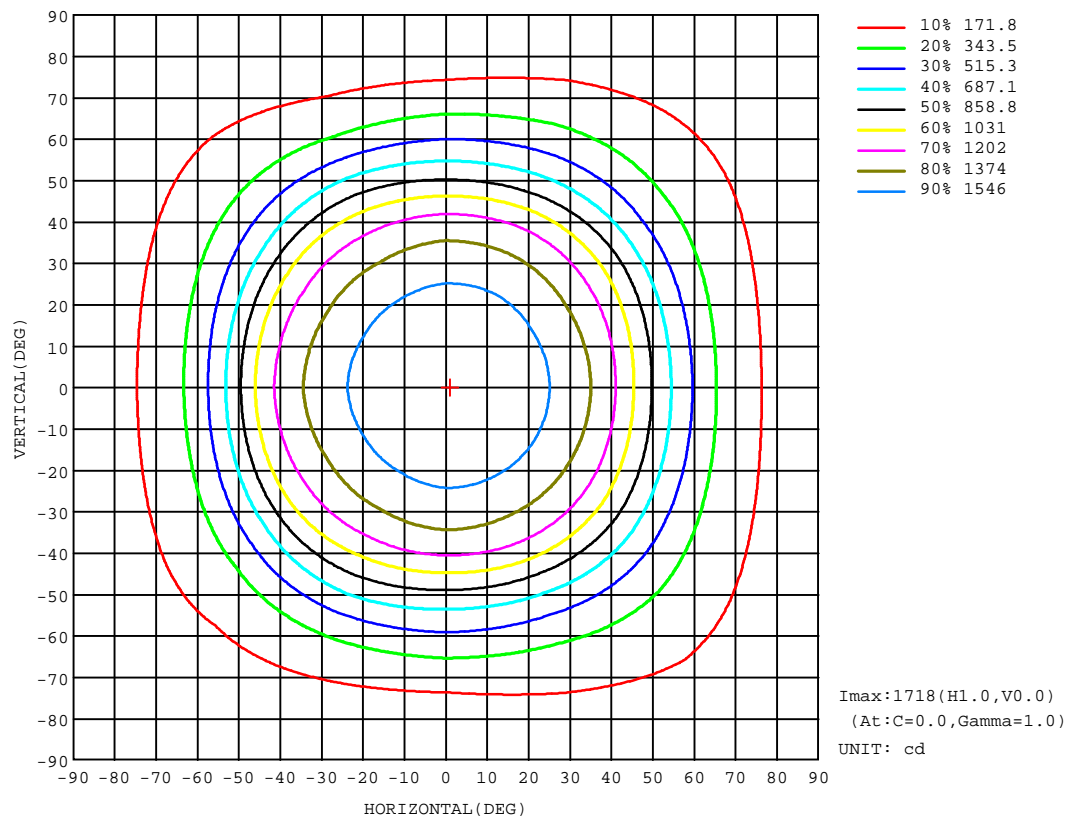
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	61	50	44	61	50	44	59	50	44	38
0.80	71	61	54	70	60	54	69	59	53	47
1.00	80	70	63	79	69	63	76	70	62	55
1.25	87	77	71	85	76	70	82	75	69	62
1.50	91	82	76	90	81	76	87	80	74	67
2.00	97	90	84	96	89	83	92	86	82	74
2.50	101	94	88	99	92	87	95	90	85	77
3.00	104	98	93	102	96	92	97	93	89	81
4.00	107	102	98	105	100	96	100	97	94	85
5.00	109	105	101	107	103	100	102	99	96	87
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:03
Test Date:2019-08-24

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:60.0%
Test Distance:12.200m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm		
NAME: R250 (42W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

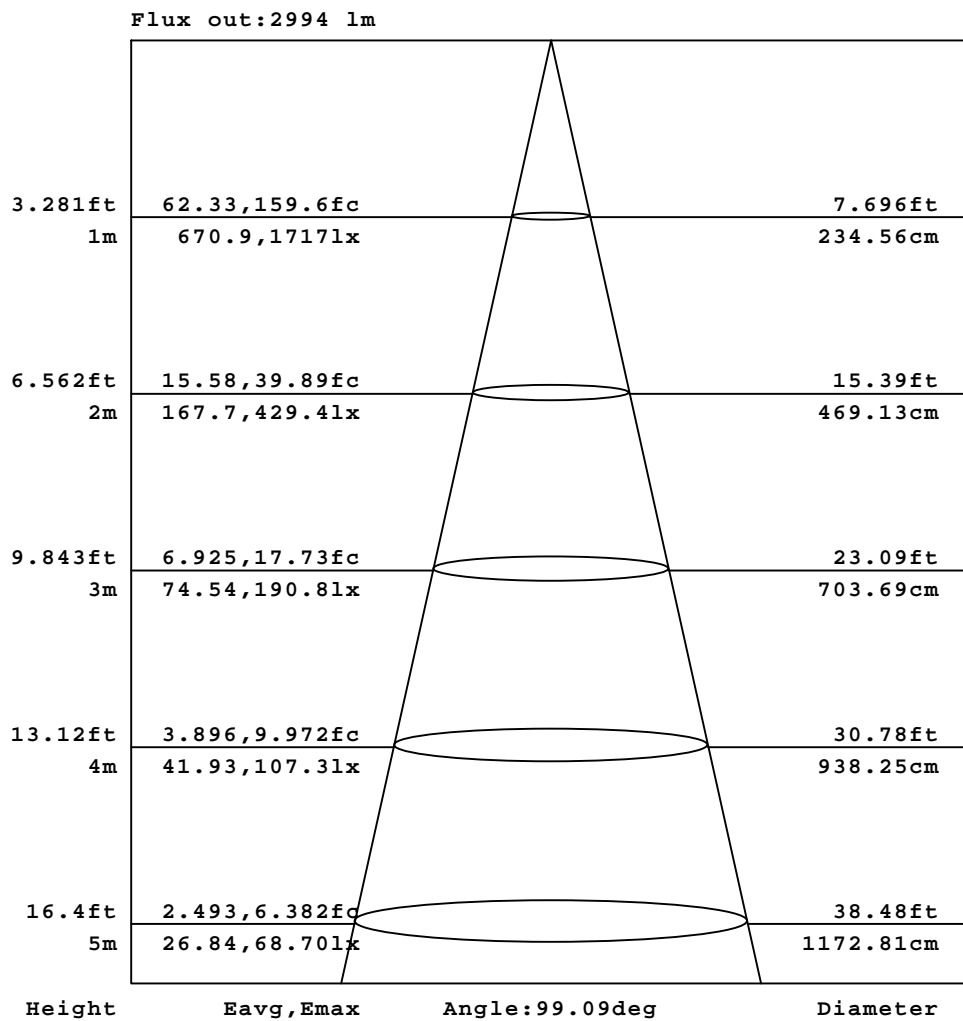


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:03
Test Date:2019-08-24

Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:60.0%
Test Distance:12.200m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm		
NAME: R250 (42W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:



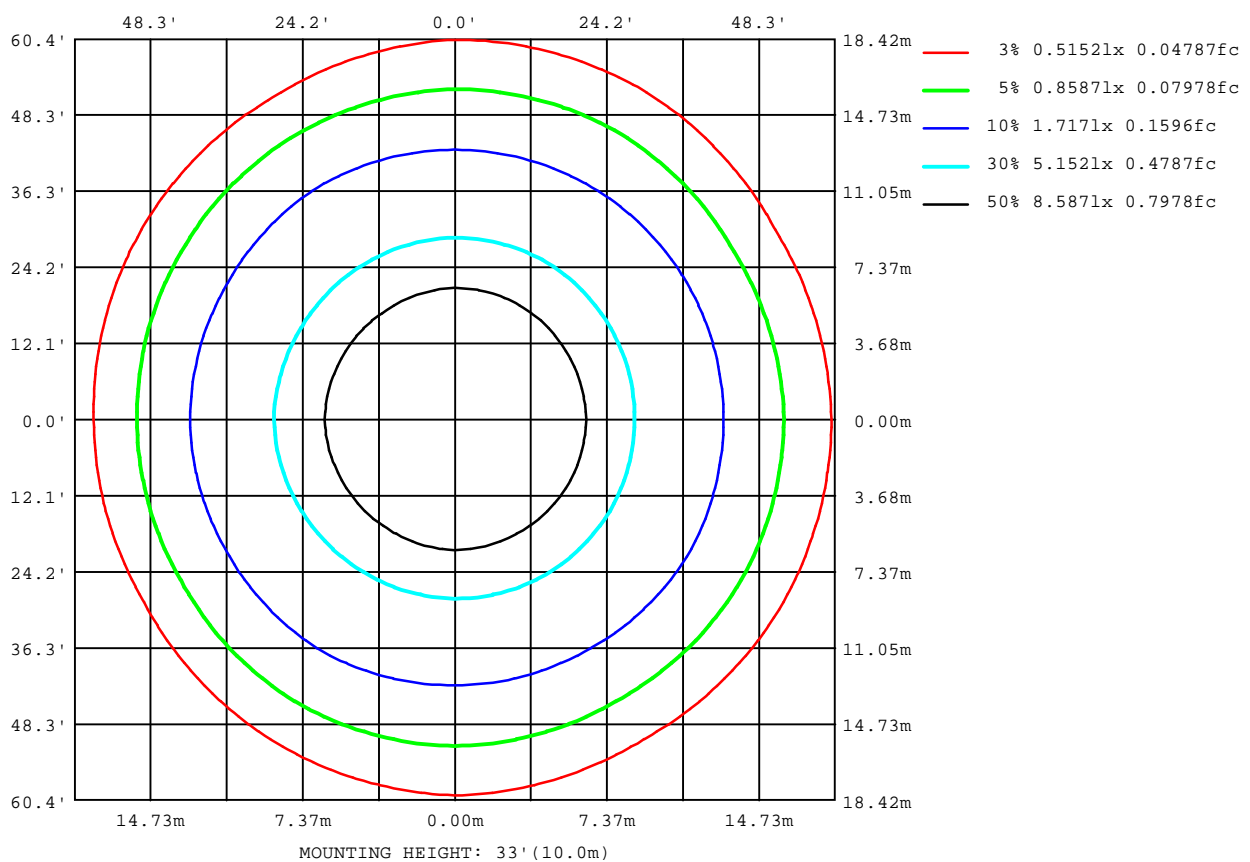
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 03
Test Date: 2019-08-24

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity: 60.0%
Test Distance: 12.200m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

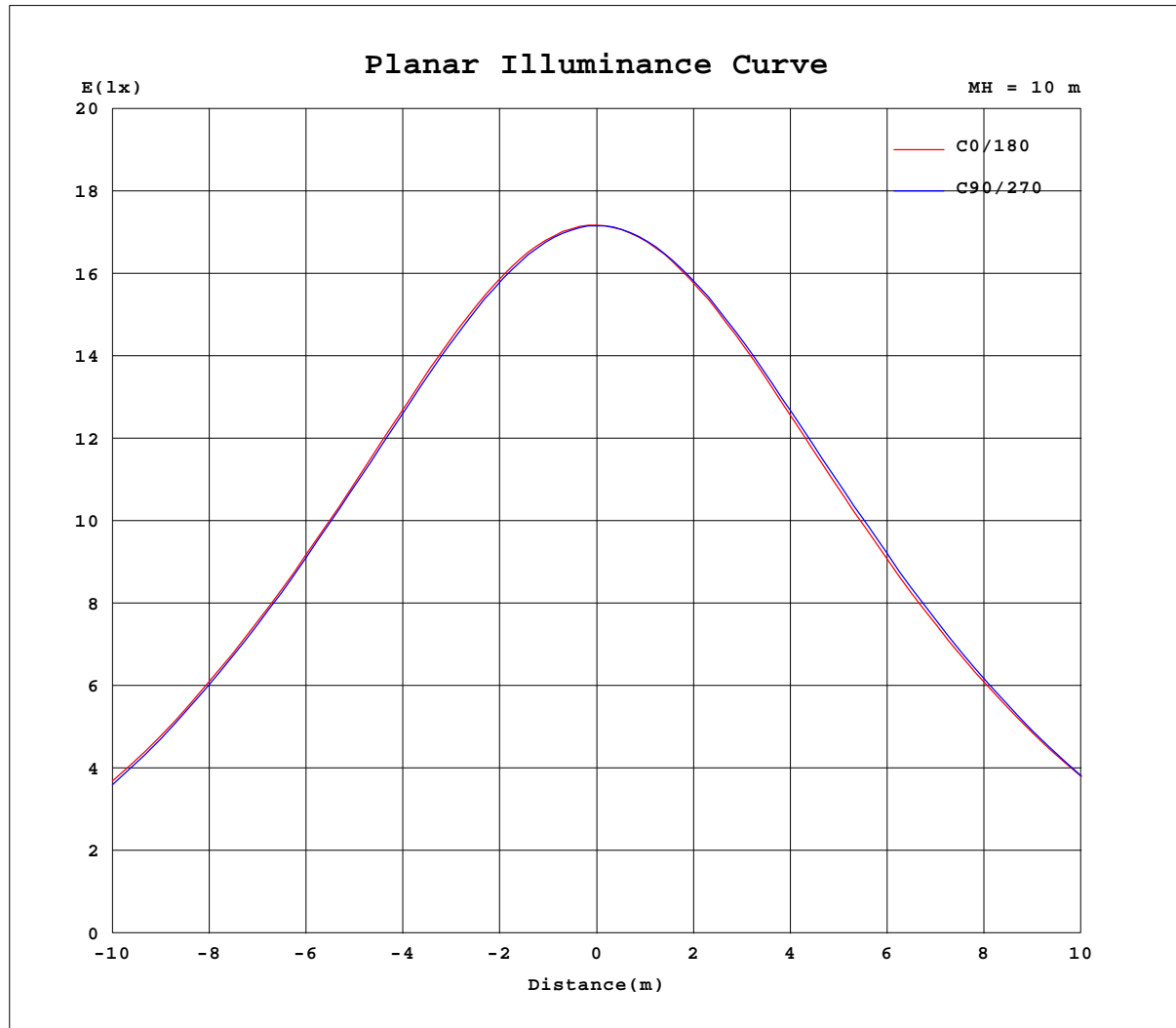
Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm		
NAME: R250 (42W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:03
Test Date:2019-08-24

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:60.0%
Test Distance:12.200m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 03
Test Date: 2019-08-24

deg Range: 0 - 180DEG
deg Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity: 60.0%
Test Distance: 12.200m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.2V I:0.1761A P:41.16W PF:0.9730 Lamp Flux:4232.49x1 lm		
NAME: R250 (42W 4000K)	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(°) g (°)	0	30	60	90	120	150	180	210	240	270	300	330						
0	1717	1717	1716	1717	1717	1715	1717	1717	1716	1717	1717	1715						
5	1712	1711	1709	1708	1706	1704	1708	1707	1708	1709	1712	1710						
10	1692	1691	1687	1684	1680	1679	1683	1681	1683	1687	1692	1690						
15	1657	1656	1651	1647	1639	1639	1645	1641	1645	1652	1658	1655						
20	1609	1606	1601	1597	1586	1584	1592	1587	1593	1605	1611	1606						
25	1548	1543	1537	1537	1519	1516	1530	1521	1528	1547	1550	1543						
30	1472	1463	1457	1462	1435	1433	1456	1441	1447	1476	1475	1463						
35	1376	1363	1356	1363	1333	1333	1364	1342	1348	1384	1380	1365						
40	1239	1234	1229	1224	1202	1211	1245	1219	1229	1260	1261	1243						
45	1046	1059	1045	1022	1024	1051	1077	1062	1073	1082	1095	1079						
50	849	863	826	818	834	821	835	837	870	865	872	873						
55	669	669	641	642	644	605	610	617	664	675	675	658						
60	503	497	475	493	466	425	428	452	473	514	513	481						
65	353	366	348	355	324	281	308	313	318	371	377	349						
70	245	268	255	237	219	197	233	220	213	249	273	252						
75	184	197	183	153	149	150	166	164	144	160	190	183						
80	134	144	119	98.9	94.3	113	92.0	111	91.1	101	119	139						
85	72.4	84.6	65.1	43.8	45.4	51.8	39.9	50.2	47.0	51.4	68.1	85.9						
90	9.99	11.3	7.43	4.71	4.13	4.29	4.13	4.30	6.01	8.32	16.5	17.8						
95	3.37	3.56	3.57	3.74	3.70	3.81	3.60	3.56	3.59	3.23	3.28	3.16						
100	4.33	4.51	4.60	4.81	4.77	4.83	4.56	4.59	4.57	4.20	4.18	4.12						
105	5.49	5.73	5.75	5.85	5.99	6.11	5.75	5.81	5.78	5.43	5.37	5.26						
110	6.93	7.13	7.05	7.32	7.46	7.49	7.12	7.22	7.17	6.80	6.73	6.70						
115	8.47	8.64	8.64	8.90	9.09	9.04	8.56	8.73	8.66	8.28	8.20	8.23						
120	10.1	10.2	10.4	10.7	10.9	10.8	10.2	10.4	10.3	9.90	9.81	9.88						
125	11.8	12.0	12.1	12.4	12.6	12.5	11.9	12.1	12.1	11.6	11.5	11.6						
130	13.4	13.6	13.7	14.0	14.2	14.1	13.6	13.7	13.7	13.3	13.2	13.2						
135	14.9	15.0	15.2	15.5	15.7	15.6	15.1	15.2	15.2	14.8	14.8	14.7						
140	16.4	16.5	16.8	17.1	17.2	17.1	16.7	16.7	16.7	16.4	16.3	16.2						
145	17.9	18.1	18.4	18.6	18.7	18.7	18.2	18.2	18.1	17.9	17.9	17.7						
150	19.5	19.7	20.0	20.1	20.2	20.2	19.7	19.7	19.6	19.5	19.4	19.3						
155	21.1	21.3	21.4	21.6	21.6	21.6	21.3	21.2	21.0	21.0	21.0	20.9						
160	22.5	22.6	22.7	22.9	22.8	22.8	22.6	22.5	22.4	22.3	22.4	22.2						
165	23.5	23.7	23.8	23.8	23.8	23.9	23.6	23.6	23.5	23.4	23.5	23.4						
170	24.3	24.4	24.5	24.6	24.5	24.6	24.4	24.4	24.4	24.3	24.4	24.2						
175	24.7	24.9	24.9	24.9	24.8	24.9	24.6	24.6	24.6	24.6	24.6	24.5						
180	24.8	24.8	24.8	24.7	24.8	24.8	24.8	24.8	24.9	24.7	24.8	24.8						

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:03
Test Date:2019-08-24

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:60.0%
Test Distance:12.200m [K=1.0000]
Remarks: