



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PLURALUCE RM COMBO - CEILING MOUNT SYMMETRICAL.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA: LM-63-2019
 [TESTDATE] 17 December 2024
 [TESTLAB] Spectra Lux
 [TEST] S2412174-R1
 [MANUFAC] BeLuce Canada Inc.
 [LUMCAT] PLURALUCE RM COMBO - CEILING MOUNT SYMMETRICAL
 [LUMINAIRE] STELLALUCE/QUADRALUCE/FORMALUCE
 [LAMP] Clusters of Seoul Semiconductors 3535 Dome LEDs Operating @ 1.35A
 [BURNING] Vertical Base Up (898 Luminaire Lumens)
 [OPTICS] PMMA - 200000357
 [LENS] None
 [HOUSING] White Painted Fabricated Metal Sheet
 [NOMINAL COLOR] 4000 K
 [DRIVE CURRENT] 675 mA / LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	900
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	8.83
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.64
Spacing Criterion (90-270)	2.48
Spacing Criterion (Diagonal)	2.56
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.13 ft
Luminous Width (90-270)	0.13 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	332877	331904	328011
55	363576	401973	283181
65	39085	94455	35828
75	29251	31910	34569
85	23690	55277	63174

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CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0.0	154	154	154	154	154	154	154	154	154	154
2.5	155	155	155	155	155	155	156	156	156	156
5.0	157	157	157	157	157	157	158	158	158	158
7.5	159	158	158	159	159	159	159	159	158	157
10.0	160	159	159	159	159	159	158	157	156	157
12.5	160	160	160	160	160	159	157	157	157	157
15.0	160	160	160	160	159	159	159	159	159	159
17.5	162	162	162	161	161	160	160	161	162	163
20.0	168	168	168	167	166	165	165	165	166	167
22.5	175	175	175	174	173	173	173	172	172	172
25.0	185	186	184	183	181	180	181	182	181	180
27.5	197	198	195	194	192	190	190	189	190	193
30.0	208	208	206	206	205	203	203	202	203	206
32.5	222	222	221	221	222	221	220	220	220	222
35.0	240	241	239	239	240	241	239	239	239	241
37.5	268	268	267	265	262	262	261	258	256	257
40.0	304	303	301	298	292	286	282	279	277	277
42.5	329	329	328	324	317	314	313	309	308	306
45.0	342	339	337	340	337	335	337	336	340	341
47.5	313	317	318	321	330	342	352	359	362	367
50.0	306	313	314	318	321	324	335	353	364	360
52.5	351	354	357	354	349	340	344	344	339	335
55.0	303	307	341	377	411	418	394	380	359	335
57.5	100	103	141	197	288	384	460	478	458	413
60.0	40	40	44	49	70	140	268	361	433	425
62.5	29	29	30	33	38	47	73	115	153	172
65.0	24	24	24	26	28	30	39	49	55	58
67.5	22	22	22	22	23	23	24	26	27	27
70.0	22	21	20	21	21	18	16	15	15	16
72.5	16	17	18	20	17	14	12	11	12	13
75.0	11	11	11	12	13	11	10	10	11	12
77.5	10	9	9	9	10	9	9	9	11	12
80.0	7	8	9	7	7	7	8	9	10	11
82.5	4	4	5	5	6	6	6	7	8	9
85.0	3	3	3	3	4	4	4	5	6	7
87.5	2	2	2	2	2	2	3	3	4	4
90.0	2	1	1	1	2	2	2	2	2	2
92.5	0	0	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0	0	0	0
100.0	0	0	0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0	0	0	0
105.0	0	0	0	0	0	0	0	0	0	0
107.5	0	0	0	0	0	0	0	0	0	0
110.0	0	0	0	0	0	0	0	0	0	0
112.5	0	0	0	0	0	0	0	0	0	0
115.0	0	0	0	0	0	0	0	0	0	0
117.5	0	0	0	0	0	0	0	0	0	0
120.0	0	0	0	0	0	0	0	0	0	0
122.5	0	0	0	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0	0	0	0

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CANDELA TABULATION - (Cont.)

135.0	0	0	0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles									
	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
0.0	154	154	154	154	154	154	154	154	154	154
2.5	156	156	157	156	156	156	156	156	156	156
5.0	158	157	157	156	156	156	155	155	155	155
7.5	156	156	156	156	155	155	155	155	154	155
10.0	157	157	157	157	158	157	157	157	157	157
12.5	158	158	159	159	159	159	159	159	159	159
15.0	159	160	161	161	161	161	161	161	160	161
17.5	163	163	163	163	163	164	164	163	163	163
20.0	168	168	167	167	167	167	167	166	165	166
22.5	172	172	173	172	171	171	171	170	169	170
25.0	181	181	182	181	181	180	178	177	176	177
27.5	194	194	196	195	196	195	193	193	192	193
30.0	210	211	214	214	214	213	212	211	209	211
32.5	226	230	234	236	236	235	231	229	226	229
35.0	245	247	252	255	258	254	250	246	243	246
37.5	262	265	269	273	276	274	266	259	255	259
40.0	281	282	287	289	293	291	283	278	275	278
42.5	303	302	306	311	316	315	309	303	298	303
45.0	336	334	341	344	346	344	341	338	337	338
47.5	368	362	357	356	351	356	361	363	367	363
50.0	360	369	353	340	337	337	331	336	341	336
52.5	341	339	314	299	290	287	283	278	269	278
55.0	322	321	292	295	322	286	269	251	236	251
57.5	402	360	331	303	253	206	159	117	105	117
60.0	392	338	235	160	72	48	43	40	39	40
62.5	152	132	84	49	37	32	29	27	26	27
65.0	57	50	39	31	27	25	23	23	22	23
67.5	27	26	25	24	23	22	21	21	21	21
70.0	15	15	15	17	18	18	18	19	19	19
72.5	13	13	13	15	14	14	14	15	15	15
75.0	13	13	12	14	13	13	13	13	13	13
77.5	12	13	13	14	14	13	13	14	14	14
80.0	11	12	12	12	13	12	12	12	12	12

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CANDELA TABULATION - (Cont.)

82.5	9	10	10	11	11	11	10	10	11	10
85.0	7	8	8	8	8	8	9	9	8	9
87.5	4	5	5	5	5	5	5	5	5	5
90.0	2	2	2	2	2	1	1	1	1	1
92.5	0	0	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0	0	0	0
100.0	0	0	0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0	0	0	0
105.0	0	0	0	0	0	0	0	0	0	0
107.5	0	0	0	0	0	0	0	0	0	0
110.0	0	0	0	0	0	0	0	0	0	0
112.5	0	0	0	0	0	0	0	0	0	0
115.0	0	0	0	0	0	0	0	0	0	0
117.5	0	0	0	0	0	0	0	0	0	0
120.0	0	0	0	0	0	0	0	0	0	0
122.5	0	0	0	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0	0	0	0
135.0	0	0	0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Horizontal Angles

	<u>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
0.0	154	154	154	154	154	154	154	154	154	154
2.5	156	156	156	156	157	156	156	156	156	156
5.0	155	156	156	156	157	157	158	158	158	158
7.5	155	155	155	156	156	156	156	157	158	159
10.0	157	157	158	157	157	157	157	157	156	157
12.5	159	159	159	159	159	158	158	157	157	157
15.0	161	161	161	161	161	160	159	159	159	159
17.5	164	164	163	163	163	163	163	163	162	161
20.0	167	167	167	167	167	168	168	167	166	165
22.5	171	171	171	172	173	172	172	172	172	172
25.0	178	180	181	181	182	181	181	180	181	182
27.5	193	195	196	195	196	194	194	193	190	189

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CANDELA TABULATION - (Cont.)

30.0	212	213	214	214	214	211	210	206	203	202
32.5	231	235	236	236	234	230	226	222	220	220
35.0	250	254	258	255	252	247	245	241	239	239
37.5	266	274	276	273	269	265	262	257	256	258
40.0	283	291	293	289	287	282	281	277	277	279
42.5	309	315	316	311	306	302	303	306	308	309
45.0	341	344	346	344	341	334	336	341	340	336
47.5	361	356	351	356	357	362	368	367	362	359
50.0	331	337	337	340	353	369	360	360	364	353
52.5	283	287	290	299	314	339	341	335	339	344
55.0	269	286	322	295	292	321	322	335	359	380
57.5	159	206	253	303	331	360	402	413	458	478
60.0	43	48	72	160	235	338	392	425	433	361
62.5	29	32	37	49	84	132	152	172	153	115
65.0	23	25	27	31	39	50	57	58	55	49
67.5	21	22	23	24	25	26	27	27	27	26
70.0	18	18	18	17	15	15	15	16	15	15
72.5	14	14	14	15	13	13	13	13	12	11
75.0	13	13	13	14	12	13	13	12	11	10
77.5	13	13	14	14	13	13	12	12	11	9
80.0	12	12	13	12	12	12	11	11	10	9
82.5	10	11	11	11	10	10	9	9	8	7
85.0	9	8	8	8	8	8	7	7	6	5
87.5	5	5	5	5	5	5	4	4	4	3
90.0	1	1	2	2	2	2	2	2	2	2
92.5	0	0	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0	0	0	0
100.0	0	0	0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0	0	0	0
105.0	0	0	0	0	0	0	0	0	0	0
107.5	0	0	0	0	0	0	0	0	0	0
110.0	0	0	0	0	0	0	0	0	0	0
112.5	0	0	0	0	0	0	0	0	0	0
115.0	0	0	0	0	0	0	0	0	0	0
117.5	0	0	0	0	0	0	0	0	0	0
120.0	0	0	0	0	0	0	0	0	0	0
122.5	0	0	0	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0	0	0	0
135.0	0	0	0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0

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CANDELA TABULATION - (Cont.)

170.0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles						
	150	155	160	165	170	175	180
0.0	154	154	154	154	154	154	154
2.5	156	155	155	155	155	155	155
5.0	158	157	157	157	157	157	157
7.5	159	159	159	159	158	158	159
10.0	158	159	159	159	159	159	160
12.5	157	159	160	160	160	160	160
15.0	159	159	159	160	160	160	160
17.5	160	160	161	161	162	162	162
20.0	165	165	166	167	168	168	168
22.5	173	173	173	174	175	175	175
25.0	181	180	181	183	184	186	185
27.5	190	190	192	194	195	198	197
30.0	203	203	205	206	206	208	208
32.5	220	221	222	221	221	222	222
35.0	239	241	240	239	239	241	240
37.5	261	262	262	265	267	268	268
40.0	282	286	292	298	301	303	304
42.5	313	314	317	324	328	329	329
45.0	337	335	337	340	337	339	342
47.5	352	342	330	321	318	317	313
50.0	335	324	321	318	314	313	306
52.5	344	340	349	354	357	354	351
55.0	394	418	411	377	341	307	303
57.5	460	384	288	197	141	103	100
60.0	268	140	70	49	44	40	40
62.5	73	47	38	33	30	29	29
65.0	39	30	28	26	24	24	24
67.5	24	23	23	22	22	22	22
70.0	16	18	21	21	20	21	22
72.5	12	14	17	20	18	17	16
75.0	10	11	13	12	11	11	11
77.5	9	9	10	9	9	9	10
80.0	8	7	7	7	9	8	7
82.5	6	6	6	5	5	4	4
85.0	4	4	4	3	3	3	3
87.5	3	2	2	2	2	2	2
90.0	2	2	2	1	1	1	2
92.5	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0
100.0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0
105.0	0	0	0	0	0	0	0
107.5	0	0	0	0	0	0	0
110.0	0	0	0	0	0	0	0
112.5	0	0	0	0	0	0	0
115.0	0	0	0	0	0	0	0

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117.5	0	0	0	0	0	0	0
120.0	0	0	0	0	0	0	0
122.5	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0
135.0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0

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Zone	Lumens	%Lamp	%Fixt
0-20	60.67	N.A.	6.70
0-30	146.21	N.A.	16.20
0-40	301.57	N.A.	33.50
0-60	824.65	N.A.	91.60
0-80	893.64	N.A.	99.30
0-90	900.10	N.A.	100.00
10-90	885.13	N.A.	98.30
20-40	240.91	N.A.	26.80
20-50	495.85	N.A.	55.10
40-70	578.40	N.A.	64.20
60-80	69.00	N.A.	7.70
70-80	13.67	N.A.	1.50
80-90	6.46	N.A.	0.70
90-110	0.22	N.A.	0.00
90-120	0.22	N.A.	0.00
90-130	0.22	N.A.	0.00
90-150	0.22	N.A.	0.00
90-180	0.22	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	900.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	14.97
10-20	45.69
20-30	85.55
30-40	155.36
40-50	254.94
50-60	268.13
60-70	55.32
70-80	13.67
80-90	6.46
90-100	0.22
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

IES INDOOR REPORT

PHOTOMETRIC FILENAME : PLURALUCE RM COMBO - CEILING MOUNT SYMMETRICAL.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

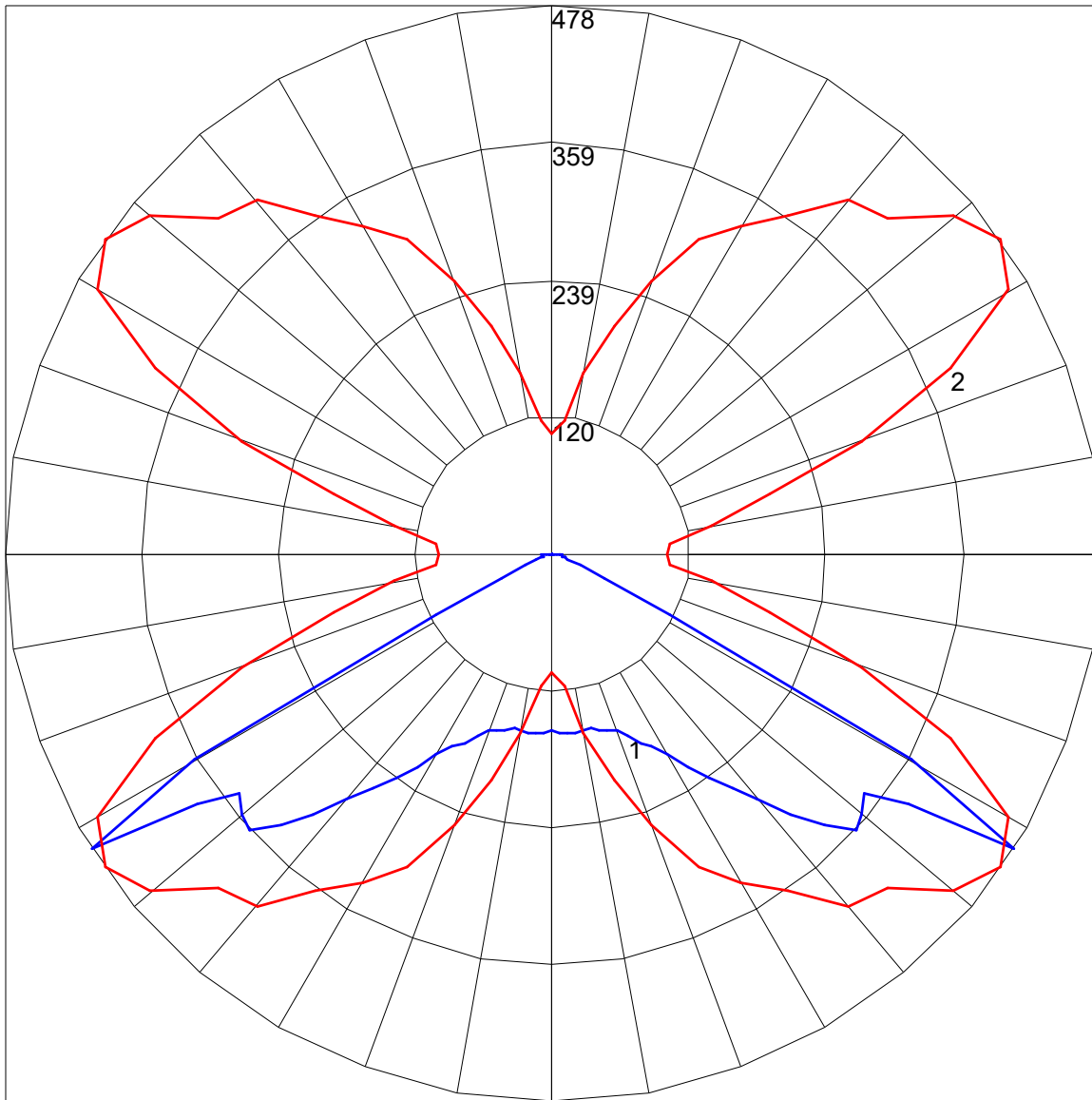
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	49
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43	41
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	62	48	39	33	61	47	39	32	46	38	32	44	37	32	43	36	32	30
8	57	43	34	28	56	42	34	28	41	33	28	40	33	27	38	32	27	25
9	53	39	30	24	52	38	30	24	37	29	24	36	29	24	35	28	24	22
10	49	35	27	21	48	35	27	21	34	26	21	33	26	21	32	25	21	19

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POLAR GRAPH



Maximum Candela = 478 Located At Horizontal Angle = 35, Vertical Angle = 57.5

1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (57.5) (Through Max. Cd.)