

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P938319

Luminaire Tested: SQ4-FB-150U-075D-840-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938319
REPORT IS A COMBINATION OF REPORTS P933638 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

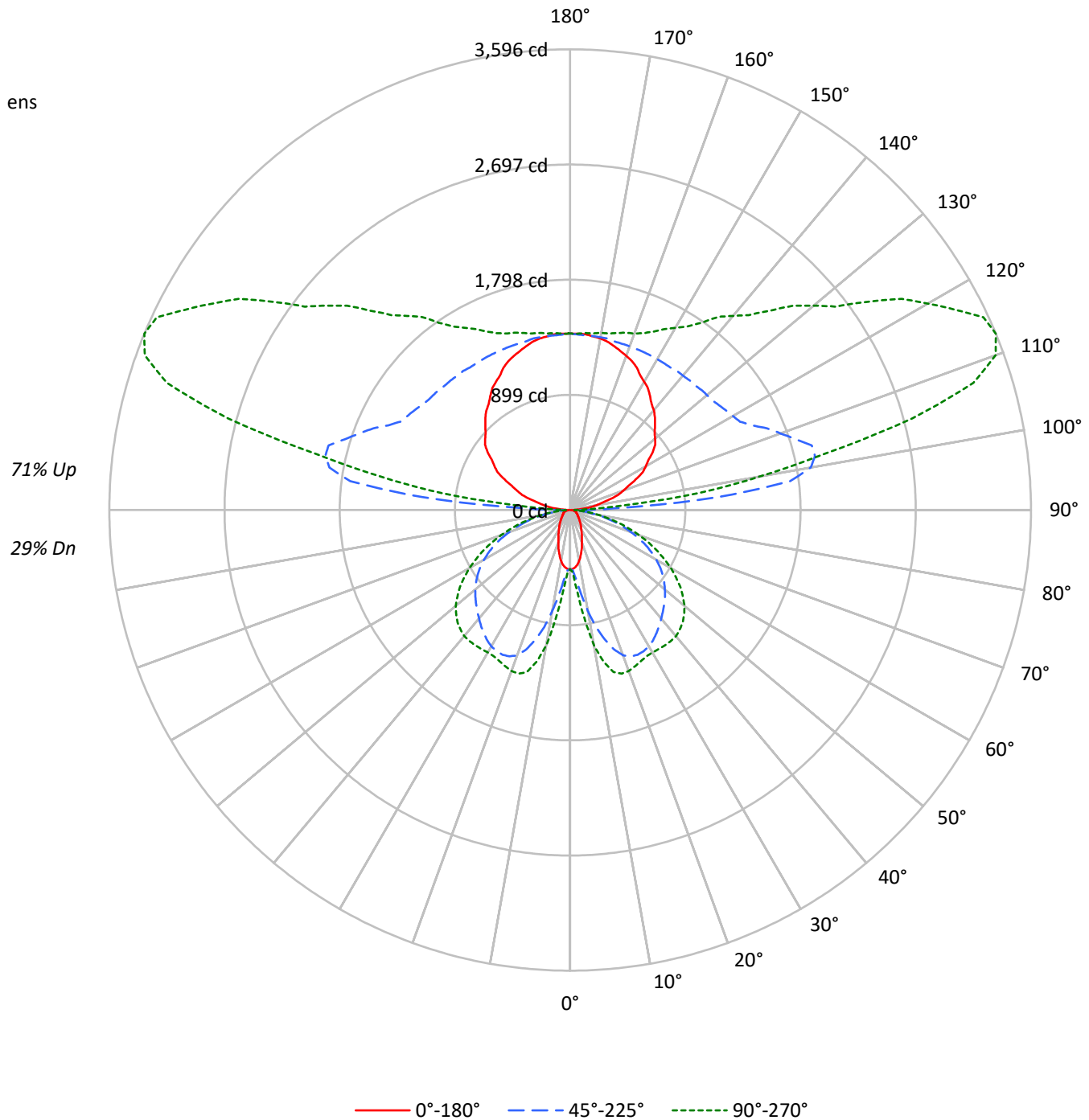
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12499.1 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 95.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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	50	30	10	0	
RCR																						
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29				29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23				23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	19				19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16				16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	13				13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11				11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10				10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8				8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7				7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	6				6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6				6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2851	2851	2851
5°	2784	3295	3833
10°	2525	4801	6354
15°	2145	6271	7673
20°	1746	7266	7820
25°	1456	7602	7661
30°	1227	7648	7646
35°	1084	7519	7844
40°	945	7351	8048
45°	854	7228	8080
50°	783	7117	7946
55°	749	6955	7593
60°	766	6647	7037
65°	796	6180	6273
70°	846	5385	5300
75°	934	4386	4136
80°	1012	3039	2787
85°	882	1609	1426

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8080 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.6	0.5
10°-20°	264.2	2.1
20°-30°	462.2	3.7
30°-40°	595.0	4.8
40°-50°	664.6	5.3
50°-60°	636.5	5.1
60°-70°	504.4	4.0
70°-80°	296.6	2.4
80°-90°	87.7	0.7
90°-100°	671.4	5.4
100°-110°	1765.0	14.1
110°-120°	1830.1	14.6
120°-130°	1468.0	11.7
130°-140°	1151.8	9.2
140°-150°	884.1	7.1
150°-160°	636.7	5.1
160°-170°	389.6	3.1
170°-180°	131.6	1.1
0°-30°	786.1	6.3
0°-40°	1381.1	11.0
0°-60°	2682.2	21.5
0°-90°	3570.9	28.6
90°-120°	4266.5	34.1
90°-150°	7770.4	62.2
90°-180°	8928.0	71.4
0°-180°	12499.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	461	461	461	461	461	
5°	449	482	542	614	636	41
15°	336	621	1046	1269	1309	94
25°	215	704	1246	1301	1303	99
35°	145	673	1174	1240	1289	91
45°	99	536	1037	1189	1242	77
55°	71	341	880	1023	1051	65
65°	56	181	654	735	745	56
75°	42	111	359	394	396	43
85°	15	34	89	98	99	16
90°	9	26	70	35	35	9
95°	89	348	1156	596	406	99
105°	318	482	1951	2962	2764	337
115°	565	686	1563	3118	3559	558
125°	786	881	1422	2402	2834	698
135°	936	1031	1377	1939	2199	724
145°	1086	1156	1360	1655	1784	680
155°	1228	1262	1360	1493	1536	564
165°	1325	1342	1360	1413	1431	374
175°	1377	1377	1369	1386	1386	131
180°	1377	1377	1377	1377	1377	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9	460.9
2.5°	460.9	460.9	463.9	465.3	468.3	469.8	472.8	475.7	484.6	486.1	489.1
5°	449.0	455.0	474.2	481.6	502.4	530.6	542.4	561.7	601.7	613.5	621.0
7.5°	431.3	444.6	492.0	503.9	555.8	629.8	661.0	702.5	766.2	797.3	822.5
10°	403.1	431.3	515.7	543.9	628.4	741.0	798.8	856.6	952.9	995.9	1012.2
12.5°	372.0	417.9	540.9	579.5	701.0	865.5	935.1	998.9	1108.5	1166.4	1175.3
15°	336.4	398.7	564.6	621.0	778.0	969.2	1046.3	1124.9	1227.2	1268.7	1279.1
17.5°	305.3	383.8	586.9	646.2	837.3	1062.6	1141.2	1206.4	1289.4	1317.6	1325.0
20°	266.8	360.1	601.7	678.8	899.6	1130.9	1206.4	1256.8	1313.2	1330.9	1333.9
22.5°	238.6	334.9	610.6	690.6	941.1	1172.4	1236.1	1276.1	1314.6	1320.6	1322.0
25°	214.9	306.8	609.1	704.0	976.6	1197.6	1246.5	1276.1	1298.3	1301.3	1301.3
27.5°	192.7	275.7	603.2	706.9	1003.3	1203.5	1242.0	1262.8	1273.1	1279.1	1279.1
30°	173.4	246.0	588.4	701.0	1015.2	1197.6	1228.7	1239.1	1249.4	1258.3	1262.8
32.5°	158.6	217.9	566.1	689.1	1016.7	1182.7	1205.0	1210.9	1225.7	1246.5	1253.9
35°	145.2	189.7	540.9	672.8	1007.8	1159.0	1173.8	1179.8	1209.4	1240.5	1250.9
37.5°	131.9	168.9	508.3	644.7	994.4	1130.9	1141.2	1151.6	1197.6	1234.6	1246.5
40°	118.6	151.2	469.8	613.5	973.7	1096.7	1105.6	1121.9	1182.7	1225.7	1237.6
42.5°	108.2	136.3	428.3	580.9	947.0	1058.1	1071.5	1095.2	1165.0	1210.9	1224.2
45°	99.3	121.5	383.8	536.5	912.9	1018.1	1037.4	1070.0	1144.2	1188.7	1200.5
47.5°	90.4	111.2	337.9	490.5	875.9	978.1	1003.3	1040.4	1115.9	1159.0	1169.4
50°	83.0	100.8	292.0	441.6	835.8	935.1	964.8	1003.3	1080.4	1120.4	1133.8
52.5°	77.1	91.9	249.0	392.7	789.9	890.7	924.8	964.8	1037.4	1075.9	1084.8
55°	71.1	84.5	211.9	340.9	742.5	843.3	880.3	918.8	990.0	1022.6	1028.5
57.5°	68.2	78.5	180.8	292.0	692.1	789.9	831.4	867.0	933.7	958.9	964.8
60°	63.7	74.1	157.1	250.5	637.3	739.5	775.1	810.7	867.0	887.7	892.2
62.5°	59.3	71.1	139.3	210.4	580.9	680.2	715.8	748.4	795.8	810.7	816.6
65°	56.3	68.2	126.0	180.8	523.1	618.0	653.6	681.7	720.3	735.1	738.0
67.5°	53.4	65.2	115.6	155.6	465.3	555.8	582.4	609.1	638.7	653.6	655.0
70°	48.9	62.2	106.7	137.8	406.1	484.6	506.8	535.0	558.7	566.1	570.6
72.5°	45.9	57.8	100.8	124.5	345.3	416.4	437.2	453.5	474.2	481.6	481.6
75°	41.5	51.9	94.8	111.2	283.1	340.9	358.6	374.9	391.2	394.2	389.8
77.5°	37.0	45.9	81.5	93.4	220.8	269.7	284.5	293.4	306.8	309.7	311.2
80°	31.1	40.0	63.7	72.6	160.1	198.6	209.0	216.4	228.2	228.2	231.2
82.5°	23.7	31.1	45.9	51.9	108.2	136.3	145.2	149.7	157.1	157.1	157.1
85°	14.8	19.3	29.6	34.1	65.2	83.0	88.9	90.4	96.3	97.8	97.8
87.5°	7.4	10.4	19.3	20.7	34.1	43.0	43.0	45.9	45.9	44.5	43.0
90°	9.3	16.7	24.0	25.9	40.7	60.4	70.2	62.4	46.8	35.2	35.2
92.5°	37.0	99.8	162.7	178.4	250.9	347.4	395.6	346.7	249.0	175.7	168.7
95°	88.7	203.7	318.8	347.6	617.2	976.6	1156.4	1031.9	782.9	596.2	575.0
97.5°	153.4	254.9	356.4	381.8	831.3	1430.7	1730.4	1651.7	1494.4	1376.4	1336.1
100°	203.3	295.4	387.4	410.4	909.3	1574.4	1906.9	1912.7	1924.2	1932.8	1884.9
102.5°	245.9	331.8	417.6	439.1	945.0	1619.5	1956.8	2057.0	2257.5	2407.9	2366.8
105°	317.9	390.7	463.4	481.6	971.5	1624.7	1951.3	2176.0	2625.4	2962.5	2940.4
107.5°	391.9	459.7	527.5	544.4	976.3	1552.3	1840.3	2153.8	2780.7	3250.9	3256.3
110°	441.8	503.1	564.2	579.6	969.0	1488.2	1747.9	2098.3	2799.2	3324.8	3347.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	490.8	549.1	607.4	622.0	969.3	1432.3	1663.8	2022.4	2739.7	3277.7	3313.1
115°	564.7	618.6	672.4	685.9	978.2	1368.1	1563.0	1908.5	2599.5	3117.7	3166.7
117.5°	637.8	686.7	735.6	747.8	996.5	1328.0	1493.8	1805.6	2429.1	2896.8	2951.2
120°	680.3	726.4	772.4	783.9	1011.2	1314.4	1466.0	1750.9	2320.7	2748.0	2800.8
122.5°	721.9	768.4	814.8	826.4	1032.5	1307.3	1444.8	1701.3	2214.4	2599.2	2651.3
125°	785.7	827.9	870.3	880.9	1061.1	1301.5	1421.6	1639.6	2075.4	2402.3	2450.2
127.5°	837.4	880.1	922.9	933.6	1089.8	1298.0	1402.2	1589.3	1963.6	2244.2	2284.8
130°	865.2	911.2	957.3	968.7	1110.8	1300.2	1394.9	1561.4	1894.6	2144.5	2181.8
132.5°	893.8	939.9	985.9	997.4	1127.7	1301.5	1388.3	1537.4	1835.7	2059.4	2092.9
135°	936.3	978.2	1020.2	1030.7	1146.2	1300.2	1377.3	1502.2	1751.9	1939.2	1968.1
137.5°	979.8	1021.3	1062.8	1073.2	1173.9	1308.2	1375.4	1481.0	1692.1	1850.5	1874.1
140°	1015.9	1054.1	1092.2	1101.8	1190.8	1309.6	1369.0	1460.2	1642.6	1779.4	1801.4
142.5°	1043.5	1078.9	1114.3	1123.1	1205.1	1314.3	1369.0	1449.1	1609.3	1729.4	1748.4
145°	1086.1	1116.9	1147.8	1155.5	1223.5	1314.3	1359.7	1425.2	1556.3	1654.6	1668.9
147.5°	1128.6	1158.6	1188.6	1196.1	1250.6	1323.3	1359.7	1411.3	1514.3	1591.7	1603.6
150°	1156.4	1183.4	1210.5	1217.3	1264.7	1328.1	1359.7	1403.3	1490.3	1555.6	1565.3
152.5°	1185.0	1205.6	1226.1	1231.2	1274.0	1331.1	1359.7	1396.8	1471.2	1527.0	1534.3
155°	1227.5	1242.7	1257.9	1261.7	1294.4	1337.9	1359.7	1389.2	1448.4	1492.8	1497.6
157.5°	1258.9	1273.7	1288.5	1292.2	1314.7	1344.7	1359.7	1382.7	1428.7	1463.2	1466.6
160°	1280.3	1291.7	1303.2	1306.0	1323.9	1347.7	1359.7	1379.4	1418.9	1448.4	1450.4
162.5°	1301.5	1310.1	1318.7	1320.9	1333.8	1351.1	1359.7	1376.3	1409.6	1434.6	1436.5
165°	1324.6	1332.4	1340.1	1342.1	1347.9	1355.7	1359.7	1371.6	1395.5	1413.3	1415.3
167.5°	1345.9	1349.5	1353.3	1354.2	1359.1	1365.7	1369.0	1376.8	1392.4	1404.0	1404.8
170°	1359.7	1363.3	1367.1	1368.0	1368.3	1368.8	1369.0	1376.8	1392.4	1404.0	1404.0
172.5°	1367.1	1367.9	1368.8	1369.0	1369.0	1369.0	1369.0	1375.1	1387.4	1396.6	1395.9
175°	1377.3	1377.3	1377.3	1377.3	1374.5	1370.8	1369.0	1372.8	1380.6	1386.5	1386.5
177.5°	1377.3	1377.3	1377.3	1377.3	1375.1	1372.2	1370.8	1373.8	1380.0	1384.7	1383.9
180°	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3	1377.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	460.9	460.9
2.5°	492.0	489.1
5°	632.8	635.8
7.5°	852.2	850.7
10°	1059.6	1073.0
12.5°	1210.9	1213.9
15°	1302.8	1308.7
17.5°	1338.3	1339.8
20°	1339.8	1336.9
22.5°	1323.5	1320.6
25°	1304.3	1302.8
27.5°	1286.5	1288.0
30°	1279.1	1283.5
32.5°	1279.1	1286.5
35°	1282.0	1289.4
37.5°	1280.5	1289.4
40°	1274.6	1285.0
42.5°	1258.3	1265.7
45°	1233.1	1242.0
47.5°	1200.5	1206.4
50°	1159.0	1165.0
52.5°	1107.1	1108.5
55°	1044.8	1050.7
57.5°	978.1	979.6
60°	904.0	908.5
62.5°	825.5	825.5
65°	742.5	745.4
67.5°	656.5	663.9
70°	569.1	570.6
72.5°	483.1	483.1
75°	394.2	395.7
77.5°	309.7	309.7
80°	229.7	231.2
82.5°	158.6	161.5
85°	99.3	99.3
87.5°	45.9	41.5
90°	35.2	35.2
92.5°	140.7	112.7
95°	490.3	405.8
97.5°	1175.0	1014.0
100°	1693.0	1501.2
102.5°	2202.4	2038.1
105°	2852.1	2763.7
107.5°	3277.6	3298.9
110°	3439.8	3531.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3454.3	3595.6
115°	3362.7	3558.7
117.5°	3168.5	3385.9
120°	3012.0	3223.2
122.5°	2859.6	3067.8
125°	2642.1	2834.0
127.5°	2446.6	2608.5
130°	2331.4	2480.9
132.5°	2226.8	2360.7
135°	2083.6	2199.0
137.5°	1968.7	2063.1
140°	1889.7	1978.1
142.5°	1824.4	1900.4
145°	1726.4	1783.9
147.5°	1651.2	1699.0
150°	1603.9	1642.6
152.5°	1563.4	1592.7
155°	1516.9	1536.2
157.5°	1480.2	1493.8
160°	1458.2	1466.0
162.5°	1443.8	1451.2
165°	1423.0	1430.8
167.5°	1408.2	1411.5
170°	1404.0	1404.0
172.5°	1393.1	1390.2
175°	1386.5	1386.5
177.5°	1380.5	1377.3
180°	1377.3	1377.3



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference 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	2.25	2.97	3.37	4.08	5.63	15.42	16.13	16.53	17.25	18.79
	3H	2.95	3.59	4.07	4.71	6.27	17.24	17.88	18.36	19.00	20.57
	4H	3.24	3.85	4.37	4.97	6.54	17.87	18.48	19.01	19.61	21.17
	6H	3.48	4.04	4.62	5.17	6.75	18.29	18.85	19.44	19.98	21.56
	8H	3.54	4.08	4.69	5.22	6.79	18.41	18.94	19.55	20.08	21.65
	12H	3.55	4.06	4.71	5.20	6.79	18.47	18.98	19.62	20.11	21.71
4H	2H	9.44	10.05	10.58	11.17	12.74	15.67	16.28	16.82	17.41	18.97
	3H	11.00	11.51	12.14	12.65	14.23	17.70	18.21	18.85	19.36	20.94
	4H	11.08	11.55	12.23	12.69	14.29	18.46	18.93	19.61	20.06	21.66
	6H	11.09	11.49	12.24	12.65	14.24	18.98	19.39	20.14	20.55	22.14
	8H	11.06	11.43	12.21	12.59	14.19	19.14	19.52	20.30	20.67	22.27
	12H	11.01	11.35	12.18	12.51	14.12	19.22	19.56	20.40	20.73	22.34
8H	4H	12.51	12.89	13.67	14.04	15.65	18.50	18.88	19.66	20.03	21.64
	6H	12.75	13.06	13.92	14.25	15.86	19.12	19.43	20.30	20.63	22.23
	8H	12.76	13.03	13.95	14.21	15.83	19.34	19.61	20.52	20.78	22.41
	12H	12.72	12.96	13.91	14.13	15.79	19.47	19.71	20.66	20.88	22.54
12H	4H	12.65	12.99	13.82	14.15	15.76	18.45	18.79	19.62	19.96	21.57
	6H	13.00	13.27	14.18	14.45	16.07	19.10	19.38	20.29	20.55	22.17
	8H	13.06	13.30	14.25	14.47	16.13	19.32	19.56	20.51	20.73	22.39