

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: P937847

Luminaire Tested: SQ4-FB-125U-050D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

**Test Information**

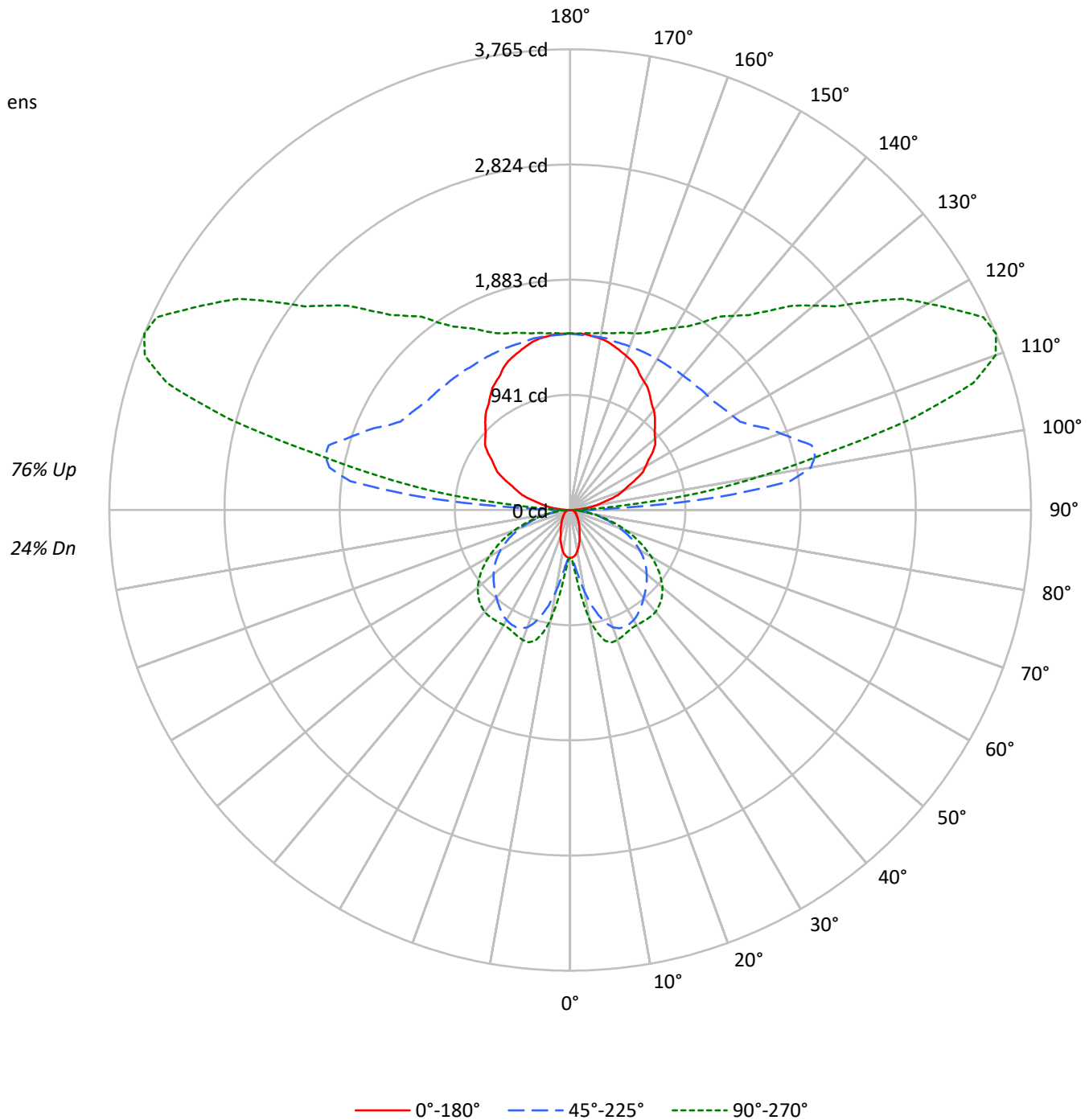
Test Method: LM-79-2019  
Report Number: P937847  
REPORT IS A COMBINATION OF REPORTS P933613 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-92765-1D-UNV-STD-W-8-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12370.9 lumens  
Efficiency: N/A  
Efficacy: 129.9 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 95.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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		
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
RCR																			
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33		24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27		20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22		16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	21	20	19		13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16		11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13		10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12		8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10		7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9		6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8		6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7		5

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1809	1809	1809
5°	1767	2091	2431
10°	1603	3048	4031
15°	1362	3982	4868
20°	1109	4614	4961
25°	925	4828	4860
30°	780	4859	4851
35°	689	4778	4976
40°	601	4674	5106
45°	544	4597	5126
50°	499	4528	5042
55°	478	4427	4818
60°	490	4232	4465
65°	510	3937	3980
70°	543	3433	3362
75°	601	2799	2624
80°	659	1942	1767
85°	582	1030	905

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5126 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.4	0.4
10°-20°	223.5	1.8
20°-30°	391.0	3.2
30°-40°	503.3	4.1
40°-50°	562.2	4.5
50°-60°	538.5	4.4
60°-70°	426.7	3.4
70°-80°	250.9	2.0
80°-90°	75.2	0.6
90°-100°	703.0	5.7
100°-110°	1848.2	14.9
110°-120°	1916.4	15.5
120°-130°	1537.2	12.4
130°-140°	1206.1	9.7
140°-150°	925.8	7.5
150°-160°	666.7	5.4
160°-170°	407.9	3.3
170°-180°	137.8	1.1
0°-30°	665.0	5.4
0°-40°	1168.3	9.4
0°-60°	2268.9	18.3
0°-90°	3021.8	24.4
90°-120°	4467.6	36.1
90°-150°	8136.6	65.8
90°-180°	9349.0	75.6
0°-180°	12370.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	380	407	459	519	538	35
15°	285	525	885	1073	1107	79
25°	182	596	1054	1101	1102	84
35°	123	569	993	1049	1091	77
45°	84	454	878	1006	1051	65
55°	60	288	745	865	889	55
65°	48	153	553	622	631	47
75°	35	94	303	334	335	37
85°	12	29	75	83	84	13
90°	10	27	74	37	37	9
95°	93	364	1211	624	425	103
105°	333	504	2043	3102	2894	353
115°	591	718	1637	3265	3726	584
125°	823	922	1489	2516	2968	730
135°	980	1079	1442	2031	2303	759
145°	1137	1210	1424	1733	1868	712
155°	1285	1321	1424	1563	1609	591
165°	1387	1405	1424	1480	1498	391
175°	1442	1442	1434	1452	1452	137
180°	1442	1442	1442	1442	1442	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9
2.5°	389.9	389.9	392.4	393.7	396.1	397.4	400.0	402.5	410.0	411.2	413.7
5°	379.9	384.9	401.2	407.4	425.0	448.8	458.8	475.1	509.0	519.0	525.3
7.5°	364.8	376.1	416.2	426.2	470.2	532.8	559.1	594.3	648.1	674.5	695.8
10°	341.0	364.8	436.3	460.2	531.6	626.8	675.8	724.7	806.1	842.5	856.3
12.5°	314.7	353.5	457.6	490.2	593.0	732.2	791.1	845.0	937.8	986.7	994.2
15°	284.6	337.2	477.6	525.3	658.2	819.9	885.2	951.5	1038.1	1073.1	1081.9
17.5°	258.3	324.7	496.5	546.6	708.3	898.9	965.4	1020.5	1090.7	1114.5	1120.8
20°	225.6	304.6	509.0	574.2	761.0	956.6	1020.5	1063.1	1110.8	1125.9	1128.4
22.5°	201.8	283.3	516.5	584.2	796.1	991.7	1045.6	1079.5	1112.0	1117.1	1118.3
25°	181.8	259.5	515.3	595.5	826.2	1013.0	1054.3	1079.5	1098.3	1100.8	1100.8
27.5°	163.0	233.2	510.3	598.0	848.8	1018.0	1050.6	1068.2	1077.0	1081.9	1081.9
30°	146.7	208.2	497.7	593.0	858.8	1013.0	1039.3	1048.1	1056.9	1064.4	1068.2
32.5°	134.1	184.3	478.9	583.0	860.0	1000.4	1019.3	1024.3	1036.8	1054.3	1060.6
35°	122.8	160.5	457.6	569.1	852.5	980.4	992.9	998.0	1023.0	1049.4	1058.1
37.5°	111.6	142.9	430.1	545.4	841.2	956.6	965.4	974.2	1013.0	1044.3	1054.3
40°	100.3	127.9	397.4	519.0	823.7	927.8	935.3	949.1	1000.4	1036.8	1046.9
42.5°	91.5	115.3	362.3	491.5	801.1	895.2	906.5	926.5	985.5	1024.3	1035.6
45°	84.0	102.8	324.7	453.8	772.3	861.3	877.6	905.2	967.9	1005.5	1015.5
47.5°	76.5	94.0	285.8	415.0	740.9	827.5	848.8	880.1	944.1	980.4	989.2
50°	70.2	85.2	246.9	373.6	707.1	791.1	816.2	848.8	914.0	947.8	959.1
52.5°	65.1	77.8	210.6	332.2	668.2	753.5	782.3	816.2	877.6	910.2	917.7
55°	60.2	71.5	179.3	288.4	628.1	713.4	744.7	777.3	837.5	865.1	870.1
57.5°	57.7	66.5	152.9	246.9	585.5	668.2	703.4	733.5	789.8	811.1	816.2
60°	53.9	62.7	132.9	211.9	539.1	625.6	655.7	685.8	733.5	750.9	754.8
62.5°	50.2	60.2	117.9	178.1	491.5	575.5	605.5	633.2	673.3	685.8	690.8
65°	47.7	57.7	106.6	152.9	442.6	522.8	552.9	576.7	609.3	621.9	624.4
67.5°	45.1	55.1	97.8	131.6	393.7	470.2	492.7	515.3	540.4	552.9	554.1
70°	41.4	52.6	90.3	116.6	343.5	410.0	428.7	452.6	472.7	478.9	482.7
72.5°	38.9	48.9	85.2	105.3	292.1	352.3	369.9	383.6	401.2	407.4	407.4
75°	35.1	43.8	80.2	94.0	239.5	288.4	303.4	317.1	331.0	333.5	329.8
77.5°	31.3	38.9	69.0	79.0	186.8	228.2	240.7	248.3	259.5	262.0	263.3
80°	26.4	33.8	53.9	61.4	135.4	168.0	176.8	183.0	193.1	193.1	195.5
82.5°	20.1	26.4	38.9	43.8	91.5	115.3	122.8	126.7	132.9	132.9	132.9
85°	12.5	16.3	25.1	28.8	55.1	70.2	75.2	76.5	81.5	82.7	82.7
87.5°	6.3	8.8	16.3	17.6	28.8	36.4	36.4	38.9	38.9	37.6	36.4
90°	9.7	17.5	25.1	27.1	42.6	63.3	73.6	65.3	49.0	36.7	36.7
92.5°	38.7	104.5	170.4	186.8	262.7	363.7	414.3	363.0	260.7	183.9	176.6
95°	92.9	213.4	333.9	364.0	646.3	1022.7	1210.8	1080.5	819.8	624.3	602.1
97.5°	160.7	267.0	373.2	399.8	870.5	1498.1	1811.9	1729.6	1564.8	1441.2	1399.1
100°	212.9	309.3	405.7	429.8	952.1	1648.5	1996.8	2002.8	2014.9	2023.9	1973.7
102.5°	257.4	347.3	437.3	459.8	989.6	1695.9	2049.1	2154.0	2364.0	2521.4	2478.4
105°	332.9	409.1	485.2	504.3	1017.2	1701.3	2043.3	2278.5	2749.2	3102.1	3079.0
107.5°	410.4	481.4	552.3	570.1	1022.4	1625.5	1927.1	2255.4	2911.8	3404.1	3409.7
110°	462.7	526.8	590.9	606.9	1014.7	1558.4	1830.3	2197.3	2931.1	3481.5	3505.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	514.0	575.0	636.2	651.4	1015.0	1499.8	1742.2	2117.8	2868.8	3432.1	3469.2
115°	591.4	647.8	704.0	718.1	1024.3	1432.6	1636.8	1998.5	2722.1	3264.7	3316.1
117.5°	667.8	719.1	770.2	783.0	1043.4	1390.6	1564.1	1890.6	2543.6	3033.4	3090.3
120°	712.3	760.6	808.7	820.8	1058.8	1376.4	1535.1	1833.4	2430.0	2877.6	2932.8
122.5°	755.9	804.5	853.1	865.3	1081.1	1368.9	1512.8	1781.5	2318.8	2721.8	2776.3
125°	822.7	867.0	911.3	922.4	1111.1	1362.8	1488.6	1716.9	2173.3	2515.6	2565.8
127.5°	876.9	921.7	966.4	977.6	1141.2	1359.2	1468.3	1664.2	2056.2	2350.0	2392.4
130°	905.9	954.1	1002.3	1014.3	1163.1	1361.4	1460.6	1635.0	1983.9	2245.5	2284.7
132.5°	935.9	984.2	1032.3	1044.3	1180.8	1362.8	1453.7	1609.9	1922.2	2156.5	2191.5
135°	980.5	1024.3	1068.3	1079.2	1200.2	1361.5	1442.2	1572.9	1834.5	2030.6	2060.8
137.5°	1025.9	1069.4	1112.9	1123.7	1229.2	1369.9	1440.2	1550.8	1771.9	1937.7	1962.5
140°	1063.7	1103.7	1143.7	1153.7	1247.0	1371.3	1433.5	1529.0	1720.0	1863.2	1886.3
142.5°	1092.8	1129.8	1166.7	1176.0	1261.8	1376.3	1433.5	1517.3	1685.1	1810.9	1830.8
145°	1137.3	1169.5	1201.8	1209.9	1281.2	1376.3	1423.7	1492.4	1629.7	1732.6	1747.6
147.5°	1181.8	1213.2	1244.7	1252.5	1309.6	1385.7	1423.7	1477.8	1585.7	1666.8	1679.2
150°	1210.8	1239.2	1267.6	1274.8	1324.4	1390.7	1423.7	1469.4	1560.6	1629.0	1639.1
152.5°	1240.8	1262.3	1283.8	1289.2	1334.1	1393.8	1423.7	1462.7	1540.6	1599.0	1606.7
155°	1285.4	1301.3	1317.2	1321.2	1355.4	1400.9	1423.7	1454.8	1516.7	1563.2	1568.2
157.5°	1318.3	1333.7	1349.2	1353.1	1376.6	1408.0	1423.7	1447.9	1496.0	1532.2	1535.7
160°	1340.6	1352.6	1364.7	1367.7	1386.4	1411.3	1423.7	1444.4	1485.7	1516.7	1518.7
162.5°	1362.8	1371.8	1380.8	1383.1	1396.6	1414.7	1423.7	1441.1	1476.0	1502.2	1504.1
165°	1387.0	1395.2	1403.4	1405.4	1411.5	1419.6	1423.7	1436.3	1461.2	1479.9	1482.0
167.5°	1409.3	1413.1	1417.0	1417.9	1423.1	1430.0	1433.5	1441.6	1458.0	1470.2	1471.0
170°	1423.7	1427.7	1431.6	1432.5	1432.8	1433.3	1433.5	1441.6	1458.0	1470.2	1470.2
172.5°	1431.5	1432.3	1433.3	1433.5	1433.5	1433.5	1433.5	1439.9	1452.8	1462.5	1461.8
175°	1442.2	1442.2	1442.2	1442.2	1439.3	1435.4	1433.5	1437.6	1445.7	1451.9	1451.9
177.5°	1442.2	1442.2	1442.2	1442.2	1439.9	1436.9	1435.4	1438.6	1445.1	1449.9	1449.1
180°	1442.2	1442.2	1442.2	1442.2	1442.2	1442.2	1442.2	1442.2	1442.2	1442.2	1442.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	389.9	389.9
2.5°	416.2	413.7
5°	535.3	537.8
7.5°	720.8	719.6
10°	896.4	907.7
12.5°	1024.3	1026.8
15°	1102.0	1107.1
17.5°	1132.1	1133.3
20°	1133.3	1130.8
22.5°	1119.6	1117.1
25°	1103.2	1102.0
27.5°	1088.2	1089.5
30°	1081.9	1085.8
32.5°	1081.9	1088.2
35°	1084.4	1090.7
37.5°	1083.2	1090.7
40°	1078.2	1087.0
42.5°	1064.4	1070.7
45°	1043.1	1050.6
47.5°	1015.5	1020.5
50°	980.4	985.5
52.5°	936.5	937.8
55°	883.9	888.9
57.5°	827.5	828.7
60°	764.8	768.5
62.5°	698.3	698.3
65°	628.1	630.6
67.5°	555.4	561.7
70°	481.5	482.7
72.5°	408.7	408.7
75°	333.5	334.7
77.5°	262.0	262.0
80°	194.3	195.5
82.5°	134.1	136.7
85°	84.0	84.0
87.5°	38.9	35.1
90°	36.7	36.7
92.5°	147.3	118.1
95°	513.5	424.9
97.5°	1230.4	1061.8
100°	1772.8	1571.9
102.5°	2306.3	2134.2
105°	2986.5	2894.0
107.5°	3432.1	3454.4
110°	3602.0	3698.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3617.1	3765.1
115°	3521.2	3726.4
117.5°	3317.8	3545.4
120°	3154.0	3375.0
122.5°	2994.4	3212.5
125°	2766.7	2967.6
127.5°	2561.9	2731.4
130°	2441.3	2597.8
132.5°	2331.8	2472.0
135°	2181.8	2302.6
137.5°	2061.4	2160.4
140°	1978.9	2071.3
142.5°	1910.4	1990.0
145°	1807.8	1868.0
147.5°	1729.1	1779.0
150°	1679.6	1720.0
152.5°	1637.1	1667.7
155°	1588.4	1608.6
157.5°	1549.9	1564.1
160°	1526.8	1535.1
162.5°	1511.9	1519.6
165°	1490.1	1498.3
167.5°	1474.5	1478.0
170°	1470.2	1470.2
172.5°	1458.7	1455.7
175°	1451.9	1451.9
177.5°	1445.6	1442.2
180°	1442.2	1442.2



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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	0.05	0.74	1.19	1.87	3.47	13.23	13.92	14.37	15.05	16.65
	3H	0.74	1.36	1.89	2.50	4.11	15.06	15.67	16.21	16.82	18.42
	4H	1.03	1.61	2.19	2.76	4.37	15.69	16.28	16.85	17.42	19.04
	6H	1.27	1.81	2.44	2.96	4.58	16.11	16.65	17.28	17.80	19.42
	8H	1.33	1.85	2.51	3.01	4.63	16.23	16.74	17.40	17.90	19.52
	12H	1.35	1.83	2.52	2.99	4.63	16.29	16.78	17.47	17.93	19.57
4H	2H	7.24	7.83	8.41	8.97	10.59	13.48	14.07	14.65	15.21	16.83
	3H	8.79	9.28	9.97	10.45	12.08	15.51	16.00	16.69	17.17	18.80
	4H	8.88	9.33	10.06	10.49	12.14	16.27	16.72	17.45	17.88	19.52
	6H	8.88	9.27	10.06	10.45	12.08	16.80	17.18	17.98	18.37	20.00
	8H	8.85	9.21	10.03	10.39	12.04	16.96	17.32	18.14	18.49	20.14
	12H	8.80	9.13	10.00	10.31	11.97	17.04	17.37	18.24	18.55	20.21
8H	4H	10.31	10.67	11.49	11.85	13.50	16.32	16.68	17.50	17.85	19.50
	6H	10.54	10.84	11.75	12.06	13.71	16.94	17.23	18.14	18.45	20.10
	8H	10.56	10.82	11.77	12.01	13.68	17.15	17.41	18.36	18.60	20.27
	12H	10.52	10.75	11.73	11.94	13.64	17.29	17.52	18.50	18.71	20.41
12H	4H	10.45	10.77	11.64	11.96	13.61	16.26	16.59	17.46	17.77	19.43
	6H	10.80	11.06	12.01	12.25	13.92	16.92	17.18	18.12	18.37	20.04
	8H	10.86	11.09	12.07	12.28	13.98	17.14	17.37	18.35	18.56	20.25