

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: P937645

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937645
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

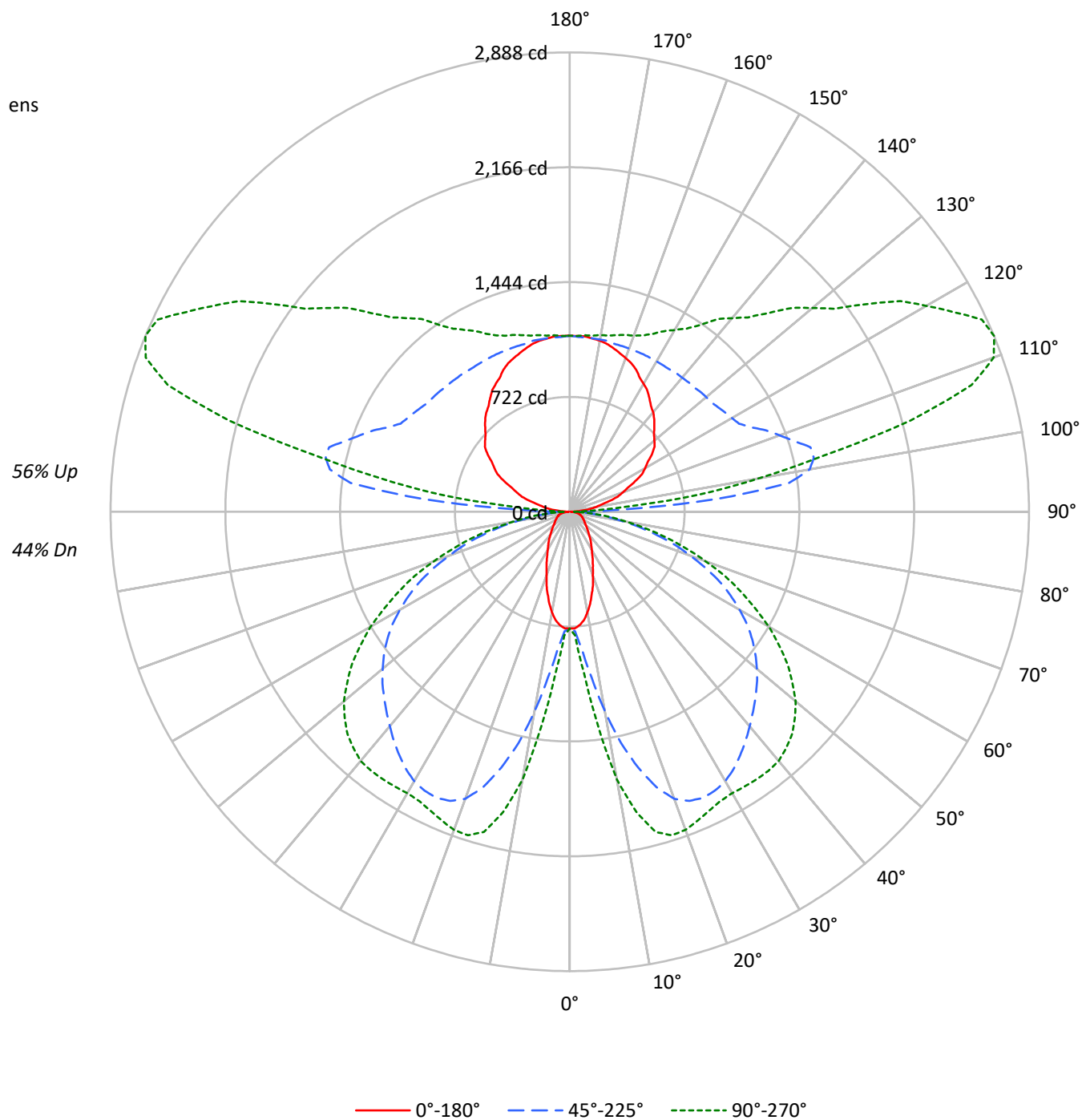
Lumens per Lamp: N/A
Luminaire Lumens: 12852.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 116
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
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3404	3404	3404
5°	3325	3934	4575
10°	3016	5734	7585
15°	2564	7492	9159
20°	2087	8682	9334
25°	1741	9085	9144
30°	1468	9143	9127
35°	1298	8991	9363
40°	1131	8793	9607
45°	1025	8649	9645
50°	939	8519	9485
55°	900	8328	9065
60°	921	7963	8401
65°	958	7407	7489
70°	1020	6459	6326
75°	1132	5266	4937
80°	1235	3653	3327
85°	1099	1939	1703

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 9645 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	0.7
10°-20°	420.6	3.3
20°-30°	735.7	5.7
30°-40°	947.0	7.4
40°-50°	1057.8	8.2
50°-60°	1013.1	7.9
60°-70°	802.9	6.2
70°-80°	472.1	3.7
80°-90°	135.4	1.1
90°-100°	539.3	4.2
100°-110°	1417.9	11.0
110°-120°	1470.2	11.4
120°-130°	1179.3	9.2
130°-140°	925.3	7.2
140°-150°	710.2	5.5
150°-160°	511.5	4.0
160°-170°	313.0	2.4
170°-180°	105.7	0.8
0°-30°	1251.2	9.7
0°-40°	2198.2	17.1
0°-60°	4269.1	33.2
0°-90°	5679.5	44.2
90°-120°	3427.5	26.7
90°-150°	6242.3	48.6
90°-180°	7172.0	55.8
0°-180°	12852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	715	767	863	977	1012	66
15°	536	988	1665	2019	2083	149
25°	342	1120	1984	2071	2074	158
35°	231	1071	1868	1974	2052	144
45°	158	854	1651	1892	1977	122
55°	113	542	1401	1628	1672	103
65°	90	288	1040	1170	1187	89
75°	66	177	571	628	630	69
85°	24	54	142	156	158	25
90°	7	21	56	28	28	8
95°	71	279	929	479	326	79
105°	256	387	1568	2380	2220	271
115°	454	551	1256	2505	2859	448
125°	631	708	1142	1930	2277	560
135°	752	828	1106	1558	1767	582
145°	872	928	1092	1329	1433	547
155°	986	1014	1092	1199	1234	453
165°	1064	1078	1092	1135	1150	300
175°	1106	1106	1100	1114	1114	105
180°	1106	1106	1106	1106	1106	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6
2.5°	733.6	733.6	738.4	740.7	745.4	747.7	752.5	757.2	771.4	773.7	778.5
5°	714.7	724.2	754.9	766.7	799.7	844.5	863.3	894.0	957.7	976.6	988.4
7.5°	686.4	707.7	783.2	802.0	884.6	1002.5	1052.0	1118.1	1219.6	1269.1	1309.2
10°	641.6	686.4	820.9	865.8	1000.2	1179.4	1271.4	1363.5	1516.7	1585.2	1611.1
12.5°	592.1	665.2	861.0	922.3	1115.8	1377.6	1488.4	1589.9	1764.4	1856.5	1870.6
15°	535.5	634.6	898.8	988.4	1238.4	1542.7	1665.4	1790.4	1953.1	2019.2	2035.7
17.5°	485.9	611.0	934.1	1028.5	1332.8	1691.3	1816.4	1920.1	2052.2	2097.0	2108.9
20°	424.6	573.2	957.7	1080.3	1431.9	1799.9	1920.1	2000.4	2090.0	2118.3	2123.0
22.5°	379.8	533.1	971.9	1099.3	1497.9	1865.9	1967.3	2031.0	2092.4	2101.8	2104.2
25°	342.1	488.3	969.5	1120.5	1554.5	1906.0	1983.8	2031.0	2066.4	2071.1	2071.1
27.5°	306.6	438.7	960.1	1125.2	1597.0	1915.5	1976.8	2009.8	2026.3	2035.7	2035.7
30°	276.0	391.6	936.4	1115.8	1615.8	1906.0	1955.6	1972.1	1988.6	2002.7	2009.8
32.5°	252.4	346.8	901.1	1096.9	1618.2	1882.4	1917.8	1927.3	1950.8	1983.8	1995.6
35°	231.2	302.0	861.0	1071.0	1604.0	1844.7	1868.3	1877.7	1924.8	1974.4	1990.9
37.5°	209.9	268.9	809.1	1026.2	1582.8	1799.9	1816.4	1832.9	1906.0	1964.9	1983.8
40°	188.7	240.7	747.7	976.6	1549.8	1745.6	1759.7	1785.7	1882.4	1950.8	1969.7
42.5°	172.2	217.0	681.7	924.7	1507.4	1684.3	1705.5	1743.2	1854.1	1927.3	1948.5
45°	158.1	193.4	611.0	853.9	1453.1	1620.6	1651.3	1703.1	1821.0	1891.8	1910.7
47.5°	143.9	176.9	537.8	780.8	1394.1	1556.9	1597.0	1656.0	1776.2	1844.7	1861.2
50°	132.1	160.4	464.7	702.9	1330.5	1488.4	1535.7	1597.0	1719.6	1783.4	1804.5
52.5°	122.6	146.2	396.3	625.1	1257.3	1417.7	1471.9	1535.7	1651.3	1712.6	1726.7
55°	113.2	134.4	337.3	542.5	1181.8	1342.2	1401.1	1462.6	1575.7	1627.6	1637.1
57.5°	108.5	125.1	287.8	464.7	1101.6	1257.3	1323.3	1380.0	1486.1	1526.2	1535.7
60°	101.4	117.9	250.0	398.6	1014.4	1177.1	1233.7	1290.3	1380.0	1413.0	1420.1
62.5°	94.3	113.2	221.7	335.0	924.7	1082.7	1139.3	1191.3	1266.7	1290.3	1299.7
65°	89.6	108.5	200.5	287.8	832.7	983.7	1040.3	1085.1	1146.4	1170.0	1174.8
67.5°	84.9	103.8	184.0	247.7	740.7	884.6	927.1	969.5	1016.7	1040.3	1042.7
70°	77.8	99.1	169.9	219.4	646.3	771.4	806.7	851.6	889.3	901.1	908.2
72.5°	73.1	92.0	160.4	198.2	549.6	662.9	695.9	721.9	754.9	766.7	766.7
75°	66.1	82.6	150.9	176.9	450.6	542.5	570.8	596.8	622.8	627.5	620.4
77.5°	59.0	73.1	129.7	148.6	351.5	429.4	452.9	467.0	488.3	493.0	495.4
80°	49.5	63.7	101.4	115.6	254.8	316.1	332.6	344.4	363.3	363.3	368.0
82.5°	37.8	49.5	73.1	82.6	172.2	217.0	231.2	238.2	250.0	250.0	250.0
85°	23.6	30.7	47.2	54.3	103.8	132.1	141.6	143.9	153.4	155.7	155.7
87.5°	11.8	16.5	30.7	33.0	54.3	68.4	68.4	73.1	73.1	70.8	68.4
90°	7.4	13.4	19.3	20.8	32.7	48.5	56.4	50.2	37.6	28.2	28.2
92.5°	29.7	80.2	130.8	143.4	201.5	279.0	317.8	278.5	200.0	141.1	135.5
95°	71.3	163.7	256.1	279.2	495.8	784.5	928.9	829.0	628.9	479.0	462.0
97.5°	123.3	204.8	286.4	306.7	667.9	1149.3	1390.1	1326.9	1200.5	1105.7	1073.4
100°	163.3	237.3	311.3	329.7	730.4	1264.8	1531.9	1536.6	1545.8	1552.7	1514.2
102.5°	197.5	266.4	335.4	352.7	759.1	1301.0	1572.0	1652.5	1813.6	1934.4	1901.4
105°	255.5	313.8	372.2	386.9	780.4	1305.2	1567.5	1748.0	2109.1	2379.9	2362.1
107.5°	314.8	369.3	423.7	437.4	784.4	1247.1	1478.4	1730.3	2233.9	2611.5	2615.8
110°	354.9	404.1	453.3	465.6	778.5	1195.6	1404.2	1685.7	2248.7	2671.0	2689.5

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	394.3	441.1	488.1	499.8	778.7	1150.7	1336.6	1624.7	2200.9	2633.1	2661.5
115°	453.7	496.9	540.2	551.0	785.9	1099.1	1255.6	1533.3	2088.4	2504.7	2544.1
117.5°	512.4	551.6	590.9	600.7	800.5	1066.8	1199.9	1450.4	1951.4	2327.1	2370.8
120°	546.6	583.5	620.5	629.7	812.4	1056.0	1177.7	1406.6	1864.3	2207.6	2250.0
122.5°	579.9	617.2	654.6	663.8	829.4	1050.2	1160.6	1366.7	1778.9	2088.1	2130.0
125°	631.2	665.2	699.2	707.7	852.5	1045.5	1142.0	1317.2	1667.3	1929.9	1968.5
127.5°	672.8	707.0	741.4	750.0	875.5	1042.8	1126.5	1276.8	1577.4	1802.9	1835.4
130°	695.0	731.9	768.9	778.2	892.3	1044.5	1120.5	1254.3	1522.0	1722.8	1752.7
132.5°	718.0	755.0	791.9	801.2	905.9	1045.5	1115.3	1235.1	1474.7	1654.4	1681.2
135°	752.2	785.9	819.6	828.0	920.8	1044.5	1106.4	1206.7	1407.4	1557.9	1581.1
137.5°	787.1	820.4	853.8	862.1	943.1	1051.0	1104.9	1189.7	1359.4	1486.6	1505.6
140°	816.0	846.7	877.4	885.1	956.6	1052.0	1099.7	1173.0	1319.6	1429.4	1447.2
142.5°	838.3	866.7	895.1	902.2	968.0	1055.8	1099.7	1164.1	1292.8	1389.4	1404.6
145°	872.5	897.3	922.1	928.2	983.0	1055.9	1092.3	1145.0	1250.2	1329.2	1340.7
147.5°	906.6	930.7	954.8	960.9	1004.7	1063.1	1092.3	1133.7	1216.6	1278.7	1288.2
150°	928.9	950.7	972.5	978.0	1016.1	1066.9	1092.3	1127.3	1197.3	1249.8	1257.5
152.5°	952.0	968.5	985.0	989.1	1023.5	1069.4	1092.3	1122.2	1181.9	1226.7	1232.6
155°	986.1	998.3	1010.5	1013.6	1039.8	1074.8	1092.3	1116.0	1163.6	1199.2	1203.1
157.5°	1011.3	1023.2	1035.2	1038.1	1056.1	1080.2	1092.3	1110.8	1147.7	1175.5	1178.2
160°	1028.5	1037.8	1047.0	1049.3	1063.6	1082.7	1092.3	1108.2	1139.9	1163.6	1165.2
162.5°	1045.5	1052.5	1059.5	1061.1	1071.5	1085.3	1092.3	1105.7	1132.4	1152.5	1154.0
165°	1064.1	1070.3	1076.6	1078.2	1082.9	1089.2	1092.3	1101.9	1121.0	1135.4	1137.0
167.5°	1081.1	1084.1	1087.1	1087.8	1091.8	1097.0	1099.7	1106.0	1118.5	1127.9	1128.5
170°	1092.3	1095.2	1098.3	1099.0	1099.3	1099.5	1099.7	1106.0	1118.5	1127.9	1127.9
172.5°	1098.3	1098.9	1099.5	1099.7	1099.7	1099.7	1099.7	1104.7	1114.6	1122.0	1121.5
175°	1106.4	1106.4	1106.4	1106.4	1104.2	1101.2	1099.7	1102.8	1109.1	1113.8	1113.8
177.5°	1106.4	1106.4	1106.4	1106.4	1104.7	1102.4	1101.2	1103.7	1108.6	1112.4	1111.8
180°	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	733.6	733.6
2.5°	783.2	778.5
5°	1007.2	1012.0
7.5°	1356.3	1354.0
10°	1686.6	1707.8
12.5°	1927.3	1932.0
15°	2073.5	2082.9
17.5°	2130.1	2132.5
20°	2132.5	2127.7
22.5°	2106.5	2101.8
25°	2075.9	2073.5
27.5°	2047.5	2049.9
30°	2035.7	2042.9
32.5°	2035.7	2047.5
35°	2040.4	2052.2
37.5°	2038.1	2052.2
40°	2028.7	2045.2
42.5°	2002.7	2014.5
45°	1962.6	1976.8
47.5°	1910.7	1920.1
50°	1844.7	1854.1
52.5°	1762.1	1764.4
55°	1663.0	1672.5
57.5°	1556.9	1559.2
60°	1438.9	1446.0
62.5°	1313.9	1313.9
65°	1181.8	1186.6
67.5°	1045.0	1056.8
70°	905.8	908.2
72.5°	769.0	769.0
75°	627.5	629.8
77.5°	493.0	493.0
80°	365.6	368.0
82.5°	252.4	257.2
85°	158.1	158.1
87.5°	73.1	66.1
90°	28.2	28.2
92.5°	113.1	90.6
95°	394.0	326.0
97.5°	943.9	814.6
100°	1360.1	1205.9
102.5°	1769.4	1637.3
105°	2291.2	2220.2
107.5°	2633.1	2650.2
110°	2763.4	2837.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2775.0	2888.5
115°	2701.4	2858.9
117.5°	2545.4	2720.0
120°	2419.7	2589.3
122.5°	2297.2	2464.5
125°	2122.6	2276.7
127.5°	1965.5	2095.5
130°	1872.9	1993.0
132.5°	1788.9	1896.5
135°	1673.8	1766.6
137.5°	1581.5	1657.4
140°	1518.1	1589.0
142.5°	1465.7	1526.7
145°	1387.0	1433.1
147.5°	1326.5	1364.8
150°	1288.5	1319.6
152.5°	1256.0	1279.4
155°	1218.6	1234.1
157.5°	1189.1	1199.9
160°	1171.5	1177.7
162.5°	1159.9	1165.9
165°	1143.3	1149.5
167.5°	1131.2	1133.9
170°	1127.9	1127.9
172.5°	1119.2	1116.8
175°	1113.8	1113.8
177.5°	1109.1	1106.4
180°	1106.4	1106.4

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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	4.71	5.55	5.70	6.57	7.91	17.89	18.73	18.88	19.74	21.09
	3H	5.41	6.17	6.42	7.19	8.56	19.72	20.48	20.73	21.50	22.87
	4H	5.71	6.43	6.73	7.45	8.83	20.37	21.09	21.39	22.11	23.49
	6H	5.96	6.62	6.99	7.65	9.04	20.80	21.46	21.83	22.49	23.88
	8H	6.03	6.66	7.06	7.70	9.09	20.92	21.55	21.95	22.60	23.98
	12H	6.04	6.64	7.09	7.68	9.10	20.99	21.59	22.03	22.63	24.04
4H	2H	11.92	12.64	12.95	13.66	15.04	18.16	18.88	19.18	19.90	21.28
	3H	13.49	14.09	14.52	15.14	16.53	20.20	20.80	21.24	21.86	23.25
	4H	13.58	14.13	14.62	15.18	16.59	20.97	21.52	22.01	22.57	23.98
	6H	13.59	14.06	14.64	15.13	16.54	21.51	21.98	22.56	23.05	24.46
	8H	13.57	14.01	14.62	15.07	16.50	21.67	22.11	22.72	23.17	24.60
	12H	13.52	13.92	14.59	15.00	16.43	21.76	22.16	22.83	23.24	24.67
8H	4H	15.02	15.47	16.08	16.53	17.95	21.03	21.47	22.08	22.53	23.96
	6H	15.26	15.63	16.34	16.74	18.16	21.65	22.02	22.73	23.13	24.55
	8H	15.28	15.61	16.37	16.69	18.13	21.87	22.20	22.96	23.28	24.73
	12H	15.25	15.53	16.34	16.62	18.10	22.02	22.30	23.11	23.39	24.87
12H	4H	15.17	15.57	16.24	16.64	18.07	20.98	21.38	22.05	22.46	23.89
	6H	15.52	15.85	16.61	16.93	18.37	21.64	21.96	22.72	23.05	24.49
	8H	15.59	15.88	16.68	16.96	18.44	21.87	22.15	22.96	23.23	24.71