

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: P936677

Luminaire Tested: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P936677  
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

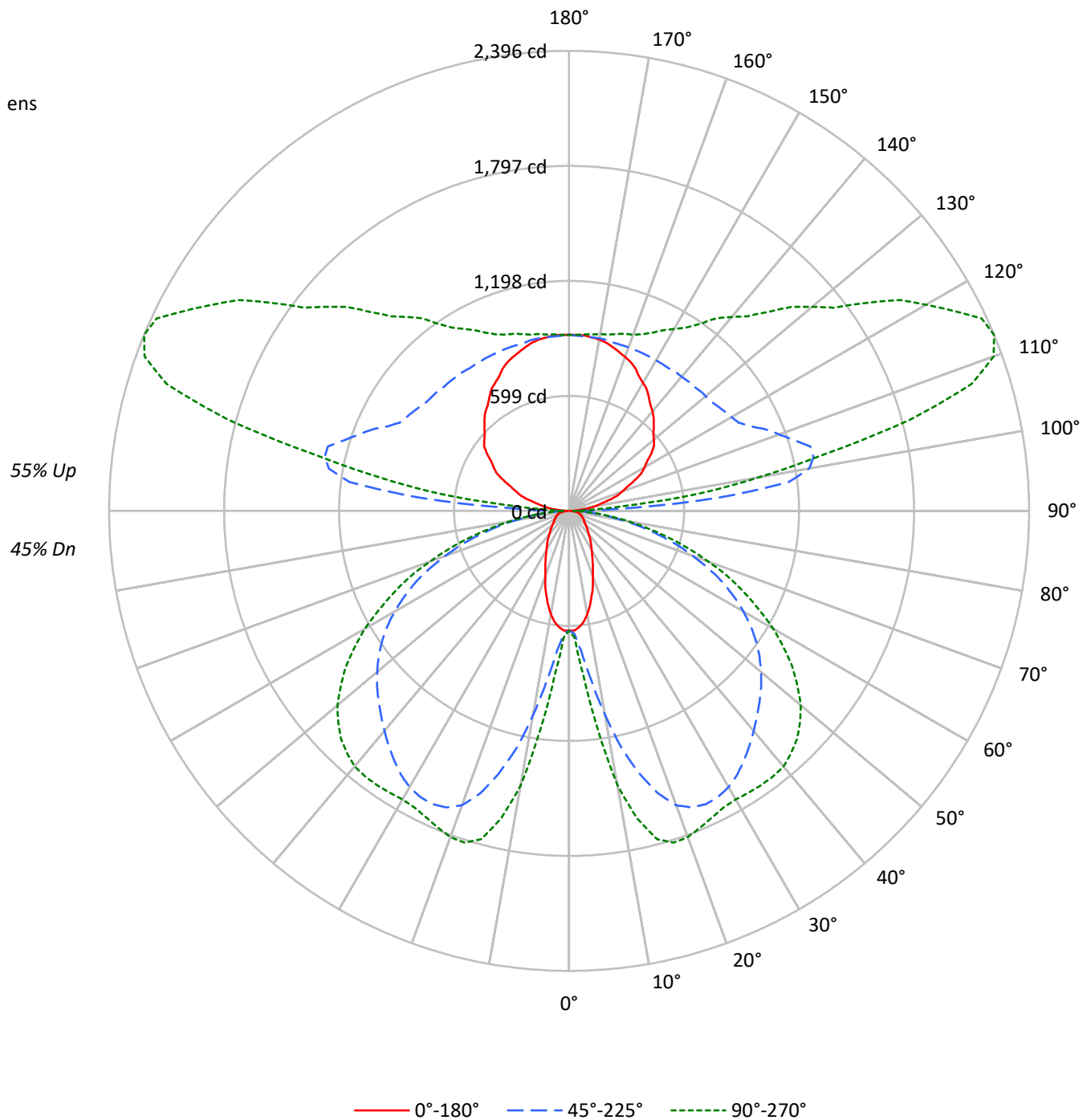
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10773.7 lumens  
Efficiency: N/A  
Efficacy: 126.5 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 85.2  
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

TEST NUMBER: P936677  
CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P936677

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

**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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

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

	0°	45°	90°
0°	1928	1928	1928
5°	1884	2229	2591
10°	1710	3250	4296
15°	1454	4247	5187
20°	1184	4922	5287
25°	988	5152	5179
30°	834	5186	5169
35°	737	5101	5303
40°	643	4991	5441
45°	583	4910	5463
50°	535	4838	5372
55°	513	4732	5134
60°	526	4526	4758
65°	548	4213	4242
70°	584	3676	3583
75°	650	3000	2796
80°	716	2083	1884
85°	648	1107	965

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5463 cd/sqm



TEST NUMBER: P936677

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.6	0.7
10°-20°	357.3	3.3
20°-30°	625.0	5.8
30°-40°	804.6	7.5
40°-50°	898.7	8.3
50°-60°	860.7	8.0
60°-70°	682.1	6.3
70°-80°	401.1	3.7
80°-90°	114.9	1.1
90°-100°	447.3	4.2
100°-110°	1176.0	10.9
110°-120°	1219.3	11.3
120°-130°	978.1	9.1
130°-140°	767.4	7.1
140°-150°	589.0	5.5
150°-160°	424.2	3.9
160°-170°	259.6	2.4
170°-180°	87.7	0.8
0°-30°	1063.0	9.9
0°-40°	1867.5	17.3
0°-60°	3627.0	33.7
0°-90°	4825.2	44.8
90°-120°	2842.6	26.4
90°-150°	5177.1	48.1
90°-180°	5949.0	55.2
0°-180°	10773.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	623	623	623	623	623	
5°	607	651	734	830	860	56
15°	455	840	1415	1716	1770	127
25°	291	952	1685	1760	1762	134
35°	196	910	1587	1678	1744	123
45°	134	726	1403	1607	1680	104
55°	96	461	1190	1383	1421	88
65°	76	244	884	994	1008	75
75°	56	150	485	533	535	59
85°	20	46	120	132	134	21
90°	6	17	47	23	23	6
95°	59	232	770	397	270	66
105°	212	321	1300	1974	1841	225
115°	376	457	1041	2077	2371	372
125°	524	587	947	1601	1888	465
135°	624	687	918	1292	1465	483
145°	724	770	906	1102	1189	453
155°	818	841	906	995	1024	376
165°	883	894	906	942	953	249
175°	918	918	912	924	924	87
180°	918	918	918	918	918	



TEST NUMBER: P936677

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3
2.5°	623.3	623.3	627.3	629.3	633.3	635.2	639.3	643.3	655.4	657.4	661.3
5°	607.3	615.2	641.3	651.3	679.4	717.4	733.5	759.5	813.6	829.7	839.7
7.5°	583.2	601.2	665.3	681.4	751.6	851.8	893.8	950.0	1036.1	1078.2	1112.2
10°	545.1	583.2	697.4	735.5	849.7	1002.1	1080.2	1158.3	1288.6	1346.8	1368.8
12.5°	503.0	565.1	731.5	783.6	947.9	1170.4	1264.6	1350.8	1499.1	1577.3	1589.2
15°	455.0	539.1	763.5	839.7	1052.2	1310.6	1414.9	1521.1	1659.4	1715.5	1729.6
17.5°	412.8	519.0	793.6	873.8	1132.4	1436.9	1543.1	1631.3	1743.6	1781.6	1791.7
20°	360.8	487.0	813.6	917.9	1216.5	1529.2	1631.3	1699.5	1775.7	1799.7	1803.7
22.5°	322.7	452.9	825.7	933.9	1272.6	1585.2	1671.4	1725.6	1777.7	1785.6	1787.6
25°	290.6	414.8	823.7	952.0	1320.7	1619.3	1685.4	1725.6	1755.5	1759.6	1759.6
27.5°	260.6	372.8	815.6	956.0	1356.8	1627.4	1679.5	1707.4	1721.5	1729.6	1729.6
30°	234.5	332.7	795.6	947.9	1372.8	1619.3	1661.4	1675.5	1689.4	1701.5	1707.4
32.5°	214.4	294.6	765.5	931.9	1374.8	1599.3	1629.4	1637.3	1657.3	1685.4	1695.5
35°	196.4	256.6	731.5	909.8	1362.8	1567.2	1587.2	1595.3	1635.3	1677.5	1691.4
37.5°	178.4	228.5	687.4	871.8	1344.7	1529.2	1543.1	1557.1	1619.3	1669.4	1685.4
40°	160.4	204.4	635.2	829.7	1316.7	1483.0	1495.1	1517.1	1599.3	1657.3	1673.4
42.5°	146.3	184.4	579.2	785.6	1280.7	1431.0	1449.0	1481.1	1575.2	1637.3	1655.4
45°	134.3	164.3	519.0	725.5	1234.5	1376.8	1402.9	1447.0	1547.2	1607.2	1623.3
47.5°	122.2	150.3	457.0	663.3	1184.4	1322.7	1356.8	1406.8	1509.0	1567.2	1581.2
50°	112.2	136.3	394.8	597.2	1130.3	1264.6	1304.7	1356.8	1461.0	1515.1	1533.1
52.5°	104.2	124.3	336.6	531.1	1068.2	1204.5	1250.6	1304.7	1402.9	1455.0	1467.0
55°	96.2	114.2	286.5	460.9	1004.1	1140.3	1190.4	1242.5	1338.7	1382.8	1390.8
57.5°	92.2	106.2	244.5	394.8	935.9	1068.2	1124.3	1172.4	1262.5	1296.7	1304.7
60°	86.2	100.2	212.4	338.7	861.7	1000.1	1048.2	1096.2	1172.4	1200.5	1206.5
62.5°	80.2	96.2	188.3	284.6	785.6	919.9	968.0	1012.0	1076.2	1096.2	1104.3
65°	76.2	92.2	170.3	244.5	707.5	835.7	883.9	921.9	974.0	994.0	998.0
67.5°	72.1	88.1	156.3	210.5	629.3	751.6	787.6	823.7	863.7	883.9	885.8
70°	66.1	84.2	144.3	186.4	549.1	655.4	685.4	723.5	755.6	765.5	771.6
72.5°	62.2	78.2	136.3	168.3	466.9	563.1	591.2	613.2	641.3	651.3	651.3
75°	56.1	70.1	128.3	150.3	382.8	460.9	485.0	507.1	529.1	533.1	527.1
77.5°	50.1	62.2	110.3	126.3	298.6	364.7	384.8	396.8	414.8	418.8	420.8
80°	42.1	54.1	86.2	98.2	216.4	268.5	282.6	292.6	308.7	308.7	312.6
82.5°	32.1	42.1	62.2	70.1	146.3	184.4	196.4	202.4	212.4	212.4	212.4
85°	20.0	26.1	40.0	46.1	88.1	112.2	120.2	122.2	130.3	132.3	132.3
87.5°	10.1	14.0	26.1	28.1	46.1	58.2	58.2	62.2	62.2	60.2	58.2
90°	6.2	11.1	16.0	17.2	27.1	40.2	46.8	41.6	31.2	23.4	23.4
92.5°	24.6	66.4	108.4	118.8	167.0	231.4	263.5	231.0	165.8	117.0	112.3
95°	59.2	135.8	212.4	231.6	411.1	650.7	770.4	687.4	521.6	397.2	383.1
97.5°	102.2	169.8	237.4	254.4	553.9	953.2	1152.9	1100.5	995.6	917.0	890.2
100°	135.5	196.8	258.1	273.4	605.8	1048.9	1270.5	1274.3	1282.0	1287.7	1255.8
102.5°	163.8	221.0	278.2	292.5	629.6	1079.1	1303.8	1370.5	1504.1	1604.3	1576.9
105°	211.8	260.3	308.7	320.8	647.2	1082.5	1300.1	1449.8	1749.2	1973.8	1959.0
107.5°	261.2	306.3	351.5	362.7	650.6	1034.3	1226.2	1435.0	1852.8	2166.0	2169.6
110°	294.4	335.2	376.0	386.1	645.6	991.6	1164.6	1398.1	1865.0	2215.2	2230.5



TEST NUMBER: P936677

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	327.0	365.8	404.7	414.4	645.8	954.3	1108.5	1347.5	1825.4	2183.8	2207.3
115°	376.3	412.1	448.0	457.0	651.8	911.5	1041.4	1271.6	1731.9	2077.3	2109.9
117.5°	424.9	457.5	490.0	498.2	663.8	884.7	995.2	1203.0	1618.4	1930.0	1966.2
120°	453.3	484.0	514.5	522.2	673.7	875.8	976.8	1166.6	1546.2	1830.9	1866.1
122.5°	481.0	511.9	542.8	550.6	687.9	871.0	962.5	1133.4	1475.4	1731.7	1766.4
125°	523.5	551.7	579.9	586.9	707.1	867.1	947.2	1092.4	1382.7	1600.6	1632.5
127.5°	558.0	586.4	614.9	622.0	726.1	864.8	934.2	1058.9	1308.2	1495.3	1522.3
130°	576.5	607.2	637.7	645.4	740.0	866.2	929.4	1040.3	1262.3	1428.8	1453.7
132.5°	595.5	626.2	656.9	664.5	751.4	867.1	925.0	1024.4	1223.1	1372.1	1394.4
135°	623.9	651.8	679.7	686.6	763.6	866.3	917.6	1000.9	1167.3	1292.1	1311.3
137.5°	652.8	680.5	708.2	715.0	782.2	871.7	916.4	986.7	1127.5	1232.9	1248.7
140°	676.8	702.3	727.7	734.1	793.4	872.5	912.0	972.8	1094.4	1185.5	1200.3
142.5°	695.3	718.8	742.4	748.3	802.9	875.7	912.0	965.4	1072.2	1152.3	1164.9
145°	723.6	744.1	764.6	769.8	815.2	875.7	906.0	949.6	1036.9	1102.4	1111.9
147.5°	752.0	771.9	791.9	796.9	833.3	881.8	906.0	940.3	1009.0	1060.5	1068.5
150°	770.4	788.4	806.6	811.0	842.7	884.8	906.0	934.9	992.9	1036.4	1042.9
152.5°	789.5	803.2	816.9	820.3	848.9	886.9	906.0	930.8	980.3	1017.4	1022.3
155°	817.8	828.0	838.1	840.6	862.4	891.4	906.0	925.7	965.0	994.6	997.8
157.5°	838.8	848.7	858.5	860.9	876.0	896.0	906.0	921.3	951.9	974.9	977.2
160°	853.0	860.6	868.3	870.2	882.2	898.0	906.0	919.1	945.3	965.0	966.3
162.5°	867.1	872.9	878.7	880.1	888.7	900.2	906.0	917.0	939.1	955.8	957.0
165°	882.6	887.7	892.9	894.2	898.1	903.4	906.0	913.9	929.8	941.6	942.9
167.5°	896.7	899.1	901.6	902.2	905.5	909.8	912.0	917.2	927.7	935.4	936.0
170°	906.0	908.4	910.8	911.4	911.6	911.9	912.0	917.2	927.7	935.4	935.4
172.5°	910.8	911.3	911.9	912.0	912.0	912.0	912.0	916.1	924.4	930.6	930.1
175°	917.6	917.6	917.6	917.6	915.7	913.2	912.0	914.6	919.9	923.8	923.8
177.5°	917.6	917.6	917.6	917.6	916.2	914.3	913.3	915.4	919.5	922.6	922.0
180°	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6	917.6



TEST NUMBER: P936677

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	623.3	623.3
2.5°	665.3	661.3
5°	855.8	859.7
7.5°	1152.4	1150.4
10°	1432.9	1451.0
12.5°	1637.3	1641.3
15°	1761.6	1769.6
17.5°	1809.7	1811.7
20°	1811.7	1807.7
22.5°	1789.6	1785.6
25°	1763.6	1761.6
27.5°	1739.5	1741.6
30°	1729.6	1735.5
32.5°	1729.6	1739.5
35°	1733.5	1743.6
37.5°	1731.5	1743.6
40°	1723.5	1737.5
42.5°	1701.5	1711.5
45°	1667.4	1679.5
47.5°	1623.3	1631.3
50°	1567.2	1575.2
52.5°	1497.1	1499.1
55°	1412.9	1420.9
57.5°	1322.7	1324.7
60°	1222.5	1228.5
62.5°	1116.3	1116.3
65°	1004.1	1008.1
67.5°	887.8	897.8
70°	769.6	771.6
72.5°	653.4	653.4
75°	533.1	535.1
77.5°	418.8	418.8
80°	310.7	312.6
82.5°	214.4	218.4
85°	134.3	134.3
87.5°	62.2	56.1
90°	23.4	23.4
92.5°	93.7	75.1
95°	326.7	270.3
97.5°	782.9	675.6
100°	1128.0	1000.2
102.5°	1467.4	1357.9
105°	1900.3	1841.4
107.5°	2183.7	2198.0
110°	2291.8	2353.1





TEST NUMBER: P936677  
CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2301.6	2395.7
115°	2240.5	2371.1
117.5°	2111.0	2255.8
120°	2006.8	2147.5
122.5°	1905.2	2044.0
125°	1760.3	1888.2
127.5°	1630.1	1737.9
130°	1553.4	1653.0
132.5°	1483.6	1572.9
135°	1388.2	1465.1
137.5°	1311.6	1374.6
140°	1259.0	1317.9
142.5°	1215.6	1266.2
145°	1150.3	1188.6
147.5°	1100.2	1132.0
150°	1068.6	1094.4
152.5°	1041.7	1061.1
155°	1010.7	1023.6
157.5°	986.1	995.2
160°	971.6	976.8
162.5°	961.9	966.9
165°	948.2	953.4
167.5°	938.2	940.4
170°	935.4	935.4
172.5°	928.2	926.3
175°	923.8	923.8
177.5°	919.8	917.6
180°	917.6	917.6



TEST NUMBER: P936677

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-2700K

**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	2.80	3.64	3.79	4.65	6.00	15.99	16.84	16.98	17.85	19.19
	3H	3.50	4.26	4.50	5.28	6.64	17.83	18.59	18.83	19.61	20.97
	4H	3.80	4.52	4.81	5.54	6.91	18.48	19.20	19.50	20.23	21.59
	6H	4.05	4.71	5.07	5.74	7.12	18.91	19.58	19.94	20.61	21.99
	8H	4.11	4.75	5.15	5.79	7.17	19.04	19.67	20.07	20.72	22.09
	12H	4.13	4.74	5.17	5.77	7.18	19.11	19.71	20.14	20.75	22.15
4H	2H	10.02	10.74	11.04	11.76	13.13	16.26	16.98	17.28	18.01	19.37
	3H	11.58	12.19	12.62	13.24	14.62	18.31	18.92	19.34	19.97	21.35
	4H	11.68	12.23	12.72	13.27	14.68	19.08	19.63	20.12	20.68	22.08
	6H	11.69	12.17	12.74	13.23	14.63	19.62	20.10	20.67	21.17	22.57
	8H	11.66	12.11	12.71	13.17	14.59	19.79	20.23	20.84	21.29	22.71
	12H	11.62	12.02	12.69	13.10	14.52	19.88	20.29	20.95	21.36	22.78
8H	4H	13.12	13.57	14.18	14.63	16.05	19.14	19.59	20.19	20.64	22.06
	6H	13.37	13.74	14.44	14.84	16.25	19.77	20.14	20.85	21.24	22.66
	8H	13.38	13.71	14.47	14.79	16.23	19.99	20.32	21.08	21.40	22.84
	12H	13.35	13.64	14.44	14.72	16.19	20.14	20.43	21.23	21.51	22.98
12H	4H	13.27	13.67	14.34	14.75	16.17	19.09	19.50	20.16	20.57	21.99
	6H	13.63	13.95	14.71	15.04	16.47	19.75	20.08	20.84	21.16	22.60
	8H	13.69	13.98	14.78	15.06	16.53	19.99	20.27	21.07	21.35	22.83