

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: P936780

Luminaire Tested: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936780
REPORT IS A COMBINATION OF REPORTS P933462 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

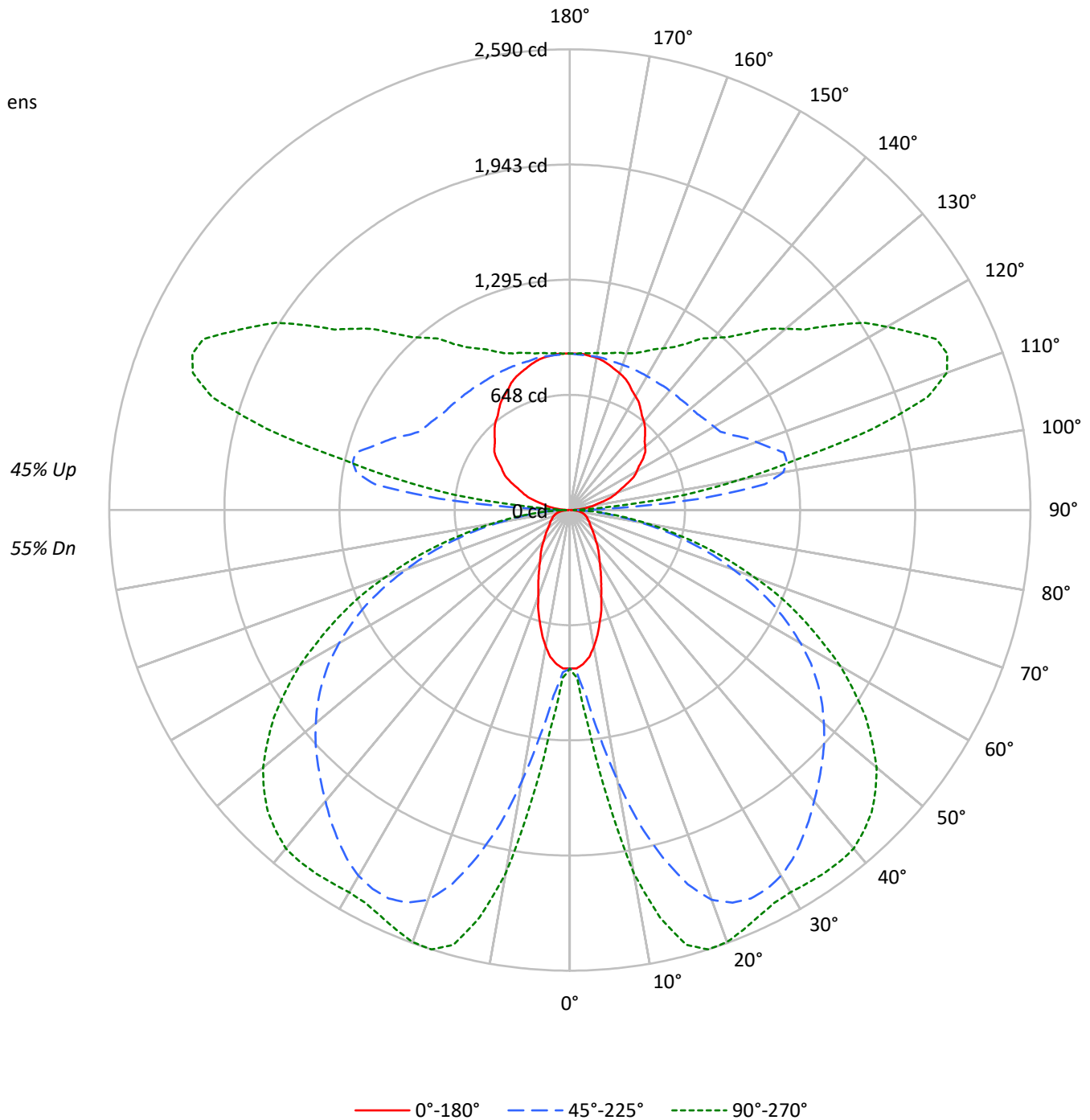
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12600.2 lumens
Efficiency: N/A
Efficacy: 115.4 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): 109.2
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

TEST NUMBER: P936780
CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P936780

CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2756	2756	2756
5°	2693	3186	3705
10°	2444	4646	6142
15°	2078	6071	7416
20°	1692	7037	7558
25°	1412	7366	7404
30°	1191	7414	7390
35°	1054	7293	7581
40°	919	7135	7779
45°	833	7020	7810
50°	764	6917	7680
55°	733	6765	7340
60°	751	6471	6802
65°	783	6023	6064
70°	835	5255	5123
75°	930	4289	3998
80°	1024	2978	2693
85°	927	1583	1379

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7810 cd/sqm



TEST NUMBER: P936780

CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	0.9
10°-20°	510.8	4.1
20°-30°	893.5	7.1
30°-40°	1150.3	9.1
40°-50°	1284.8	10.2
50°-60°	1230.5	9.8
60°-70°	975.2	7.7
70°-80°	573.4	4.6
80°-90°	162.7	1.3
90°-100°	428.9	3.4
100°-110°	1127.5	8.9
110°-120°	1169.1	9.3
120°-130°	937.8	7.4
130°-140°	735.9	5.8
140°-150°	564.8	4.5
150°-160°	406.7	3.2
160°-170°	248.9	2.0
170°-180°	84.1	0.7
0°-30°	1519.6	12.1
0°-40°	2669.9	21.2
0°-60°	5185.2	41.2
0°-90°	6896.5	54.7
90°-120°	2725.5	21.6
90°-150°	4964.0	39.4
90°-180°	5704.0	45.3
0°-180°	12600.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	868	931	1049	1186	1229	80
15°	650	1200	2023	2452	2530	181
25°	415	1361	2410	2516	2518	191
35°	281	1301	2269	2398	2493	175
45°	192	1037	2006	2298	2401	148
55°	138	659	1702	1977	2031	125
65°	109	350	1264	1421	1441	108
75°	80	215	693	762	765	84
85°	29	66	172	189	192	30
90°	6	16	45	22	22	7
95°	57	222	739	381	259	63
105°	203	308	1247	1892	1766	215
115°	361	438	998	1992	2274	356
125°	502	563	908	1535	1810	446
135°	598	658	880	1239	1405	463
145°	694	738	869	1057	1140	435
155°	784	806	869	954	982	360
165°	846	857	869	903	914	239
175°	880	880	874	886	886	84
180°	880	880	880	880	880	



TEST NUMBER: P936780
 CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0
2.5°	891.0	891.0	896.7	899.6	905.3	908.2	913.9	919.7	936.9	939.7	945.4
5°	868.1	879.6	916.8	931.1	971.2	1025.7	1048.6	1085.9	1163.3	1186.2	1200.5
7.5°	833.7	859.5	951.2	974.1	1074.4	1217.7	1277.9	1358.1	1481.3	1541.5	1590.2
10°	779.3	833.7	997.0	1051.5	1214.9	1432.6	1544.3	1656.1	1842.3	1925.4	1956.9
12.5°	719.1	807.9	1045.7	1120.3	1355.2	1673.3	1807.9	1931.1	2143.1	2254.9	2272.0
15°	650.4	770.7	1091.7	1200.5	1504.2	1873.8	2022.8	2174.6	2372.3	2452.5	2472.6
17.5°	590.2	742.0	1134.6	1249.2	1618.8	2054.3	2206.1	2332.2	2492.6	2547.1	2561.4
20°	515.7	696.2	1163.3	1312.3	1739.2	2186.1	2332.2	2429.6	2538.5	2572.9	2578.6
22.5°	461.3	647.5	1180.5	1335.2	1819.4	2266.3	2389.5	2466.9	2541.4	2552.8	2555.7
25°	415.4	593.1	1177.6	1361.0	1888.1	2315.0	2409.6	2466.9	2509.8	2515.6	2515.6
27.5°	372.4	532.9	1166.2	1366.7	1939.7	2326.5	2401.0	2441.1	2461.1	2472.6	2472.6
30°	335.2	475.6	1137.5	1355.2	1962.6	2315.0	2375.2	2395.2	2415.3	2432.5	2441.1
32.5°	306.6	421.2	1094.5	1332.3	1965.5	2286.4	2329.3	2340.8	2369.5	2409.6	2423.9
35°	280.8	366.7	1045.7	1300.8	1948.3	2240.5	2269.2	2280.6	2337.9	2398.1	2418.2
37.5°	255.0	326.6	982.7	1246.4	1922.5	2186.1	2206.1	2226.2	2315.0	2386.6	2409.6
40°	229.2	292.2	908.2	1186.2	1882.4	2120.2	2137.4	2168.9	2286.4	2369.5	2392.4
42.5°	209.1	263.6	828.0	1123.2	1830.8	2045.7	2071.5	2117.3	2252.0	2340.8	2366.6
45°	192.0	234.9	742.0	1037.1	1764.9	1968.4	2005.6	2068.6	2211.9	2297.8	2320.7
47.5°	174.8	214.9	653.2	948.3	1693.3	1891.0	1939.7	2011.3	2157.4	2240.5	2260.6
50°	160.4	194.8	564.4	853.8	1616.0	1807.9	1865.2	1939.7	2088.7	2166.0	2191.8
52.5°	149.0	177.6	481.3	759.2	1527.1	1722.0	1787.9	1865.2	2005.6	2080.1	2097.3
55°	137.5	163.3	409.7	658.9	1435.5	1630.3	1701.9	1776.4	1913.9	1976.9	1988.4
57.5°	131.8	151.8	349.5	564.4	1338.1	1527.1	1607.4	1676.1	1805.0	1853.8	1865.2
60°	123.2	143.2	303.7	484.2	1232.0	1429.7	1498.5	1567.3	1676.1	1716.2	1724.8
62.5°	114.6	137.5	269.3	406.8	1123.2	1315.1	1383.9	1446.9	1538.6	1567.3	1578.7
65°	108.9	131.8	243.5	349.5	1011.3	1194.8	1263.6	1318.0	1392.5	1421.1	1426.9
67.5°	103.1	126.1	223.5	300.8	899.6	1074.4	1126.0	1177.6	1234.9	1263.6	1266.4
70°	94.5	120.3	206.3	266.4	785.0	936.9	979.8	1034.3	1080.1	1094.5	1103.1
72.5°	88.8	111.7	194.8	240.7	667.5	805.1	845.2	876.7	916.8	931.1	931.1
75°	80.2	100.3	183.4	214.9	547.2	658.9	693.3	724.8	756.4	762.1	753.5
77.5°	71.6	88.8	157.6	180.5	426.9	521.4	550.1	567.3	593.1	598.8	601.6
80°	60.2	77.4	123.2	140.4	309.4	383.9	404.0	418.3	441.2	441.2	446.9
82.5°	45.8	60.2	88.8	100.3	209.1	263.6	280.8	289.4	303.7	303.7	303.7
85°	28.6	37.2	57.3	65.9	126.1	160.4	171.9	174.8	186.2	189.1	189.1
87.5°	14.3	20.1	37.2	40.1	65.9	83.1	83.1	88.8	88.8	86.0	83.1
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	39.9	29.9	22.4	22.4
92.5°	23.6	63.7	103.9	113.9	160.2	221.8	252.7	221.5	159.0	112.2	107.7
95°	56.7	130.2	203.7	222.0	394.2	623.9	738.7	659.1	500.1	380.9	367.3
97.5°	98.0	162.8	227.7	243.9	531.1	913.9	1105.4	1055.2	954.6	879.3	853.6
100°	129.9	188.7	247.4	262.1	580.8	1005.7	1218.2	1221.8	1229.2	1234.7	1204.1
102.5°	157.1	211.9	266.7	280.5	603.7	1034.6	1250.1	1314.1	1442.1	1538.2	1512.0
105°	203.1	249.5	296.0	307.6	620.6	1037.9	1246.6	1390.1	1677.2	1892.5	1878.4
107.5°	250.4	293.7	337.0	347.8	623.8	991.8	1175.7	1376.0	1776.5	2076.8	2080.3
110°	282.3	321.4	360.5	370.3	619.0	950.8	1116.7	1340.5	1788.2	2124.0	2138.7



TEST NUMBER: P936780

CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.5	350.8	388.0	397.4	619.2	915.0	1062.9	1292.0	1750.2	2093.9	2116.5
115°	360.8	395.2	429.6	438.2	625.0	874.0	998.5	1219.2	1660.6	1991.7	2023.1
117.5°	407.4	438.6	469.9	477.7	636.5	848.3	954.2	1153.4	1551.8	1850.6	1885.3
120°	434.6	464.0	493.4	500.7	646.0	839.7	936.6	1118.6	1482.5	1755.6	1789.3
122.5°	461.2	490.9	520.5	527.9	659.6	835.1	922.9	1086.8	1414.6	1660.5	1693.7
125°	501.9	529.0	556.0	562.8	678.0	831.4	908.2	1047.4	1325.8	1534.7	1565.3
127.5°	535.0	562.3	589.6	596.4	696.2	829.2	895.8	1015.4	1254.4	1433.7	1459.6
130°	552.8	582.2	611.5	618.8	709.6	830.6	891.1	997.5	1210.4	1369.9	1393.8
132.5°	571.0	600.4	629.8	637.2	720.5	831.4	886.9	982.2	1172.7	1315.6	1337.0
135°	598.2	625.0	651.7	658.4	732.2	830.7	879.8	959.7	1119.3	1238.9	1257.4
137.5°	625.9	652.5	679.0	685.6	750.0	835.8	878.7	946.1	1081.1	1182.2	1197.3
140°	648.9	673.4	697.7	703.8	760.8	836.6	874.5	932.7	1049.4	1136.7	1150.9
142.5°	666.7	689.2	711.9	717.5	769.8	839.6	874.5	925.7	1028.1	1104.8	1117.0
145°	693.8	713.5	733.2	738.1	781.7	839.6	868.7	910.5	994.3	1057.0	1066.2
147.5°	721.0	740.1	759.3	764.1	799.0	845.5	868.7	901.6	967.5	1016.9	1024.5
150°	738.7	756.0	773.4	777.7	808.0	848.4	868.7	896.5	952.0	993.8	1000.0
152.5°	757.0	770.1	783.3	786.5	813.9	850.4	868.7	892.4	939.9	975.5	980.2
155°	784.2	793.9	803.6	806.0	826.9	854.7	868.7	887.6	925.3	953.7	956.7
157.5°	804.3	813.8	823.1	825.5	839.9	859.1	868.7	883.4	912.7	934.8	937.0
160°	817.9	825.2	832.6	834.4	845.8	861.0	868.7	881.3	906.4	925.3	926.5
162.5°	831.4	837.0	842.5	843.8	852.1	863.1	868.7	879.3	900.5	916.4	917.6
165°	846.2	851.2	856.2	857.4	861.1	866.2	868.7	876.3	891.5	902.9	904.1
167.5°	859.8	862.1	864.5	865.0	868.2	872.4	874.5	879.5	889.5	896.9	897.5
170°	868.7	871.0	873.3	873.9	874.1	874.4	874.5	879.5	889.5	896.9	896.9
172.5°	873.3	873.8	874.4	874.5	874.5	874.5	874.5	878.4	886.3	892.3	891.8
175°	879.8	879.8	879.8	879.8	878.0	875.6	874.5	877.0	882.0	885.8	885.8
177.5°	879.8	879.8	879.8	879.8	878.5	876.7	875.7	877.7	881.7	884.6	884.0
180°	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8	879.8



TEST NUMBER: P936780

CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	891.0	891.0
2.5°	951.2	945.4
5°	1223.5	1229.2
7.5°	1647.5	1644.6
10°	2048.6	2074.4
12.5°	2340.8	2346.5
15°	2518.4	2529.9
17.5°	2587.2	2590.1
20°	2590.1	2584.3
22.5°	2558.5	2552.8
25°	2521.3	2518.4
27.5°	2486.9	2489.8
30°	2472.6	2481.2
32.5°	2472.6	2486.9
35°	2478.3	2492.6
37.5°	2475.5	2492.6
40°	2464.0	2484.1
42.5°	2432.5	2446.8
45°	2383.8	2401.0
47.5°	2320.7	2332.2
50°	2240.5	2252.0
52.5°	2140.3	2143.1
55°	2019.9	2031.4
57.5°	1891.0	1893.9
60°	1747.7	1756.3
62.5°	1595.9	1595.9
65°	1435.5	1441.2
67.5°	1269.3	1283.6
70°	1100.3	1103.1
72.5°	934.0	934.0
75°	762.1	765.0
77.5°	598.8	598.8
80°	444.1	446.9
82.5°	306.6	312.3
85°	192.0	192.0
87.5°	88.8	80.2
90°	22.4	22.4
92.5°	89.9	72.0
95°	313.2	259.2
97.5°	750.6	647.8
100°	1081.5	959.0
102.5°	1407.0	1302.0
105°	1822.0	1765.6
107.5°	2093.8	2107.5
110°	2197.5	2256.3



TEST NUMBER: P936780

CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2206.8	2297.1
115°	2148.3	2273.5
117.5°	2024.1	2163.0
120°	1924.2	2059.1
122.5°	1826.8	1959.9
125°	1687.9	1810.5
127.5°	1563.0	1666.4
130°	1489.4	1584.9
132.5°	1422.6	1508.1
135°	1331.1	1404.8
137.5°	1257.6	1318.0
140°	1207.2	1263.7
142.5°	1165.6	1214.1
145°	1102.9	1139.7
147.5°	1054.9	1085.4
150°	1024.6	1049.4
152.5°	998.8	1017.5
155°	969.1	981.5
157.5°	945.5	954.2
160°	931.6	936.6
162.5°	922.3	927.1
165°	909.2	914.1
167.5°	899.6	901.7
170°	896.9	896.9
172.5°	890.0	888.2
175°	885.8	885.8
177.5°	881.9	879.8
180°	879.8	879.8



TEST NUMBER: P936780
 CATALOG NUMBER: SQ4-FB-050U-075D-B2750-1D-UNV-STD-W-12-4000K

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	4.95	5.90	5.86	6.83	8.03	18.15	19.09	19.05	20.03	21.22
	3H	5.66	6.52	6.58	7.46	8.68	20.00	20.85	20.92	21.79	23.01
	4H	5.97	6.77	6.90	7.72	8.95	20.65	21.46	21.58	22.40	23.64
	6H	6.22	6.97	7.17	7.92	9.17	21.09	21.84	22.03	22.79	24.03
	8H	6.29	7.00	7.24	7.97	9.22	21.21	21.93	22.17	22.90	24.14
	12H	6.31	6.99	7.27	7.95	9.22	21.29	21.97	22.25	22.93	24.20
4H	2H	12.19	13.00	13.13	13.94	15.17	18.43	19.24	19.37	20.18	21.42
	3H	13.76	14.44	14.71	15.42	16.66	20.49	21.17	21.44	22.14	23.39
	4H	13.86	14.48	14.82	15.45	16.72	21.26	21.88	22.22	22.85	24.12
	6H	13.88	14.41	14.85	15.41	16.68	21.81	22.35	22.78	23.34	24.61
	8H	13.86	14.36	14.83	15.34	16.63	21.98	22.48	22.95	23.47	24.75
	12H	13.82	14.27	14.81	15.27	16.56	22.08	22.53	23.07	23.54	24.83
8H	4H	15.32	15.82	16.29	16.81	18.09	21.33	21.83	22.31	22.82	24.10
	6H	15.56	15.98	16.56	17.01	18.29	21.97	22.38	22.97	23.41	24.70
	8H	15.58	15.95	16.59	16.97	18.27	22.19	22.56	23.20	23.58	24.88
	12H	15.55	15.88	16.57	16.89	18.23	22.34	22.67	23.36	23.68	25.02
12H	4H	15.47	15.92	16.46	16.92	18.21	21.29	21.74	22.28	22.74	24.03
	6H	15.82	16.19	16.83	17.21	18.51	21.95	22.32	22.96	23.34	24.64
	8H	15.90	16.22	16.91	17.23	18.58	22.19	22.51	23.20	23.52	24.87