

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: P937788

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937788
REPORT IS A COMBINATION OF REPORTS P933576 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

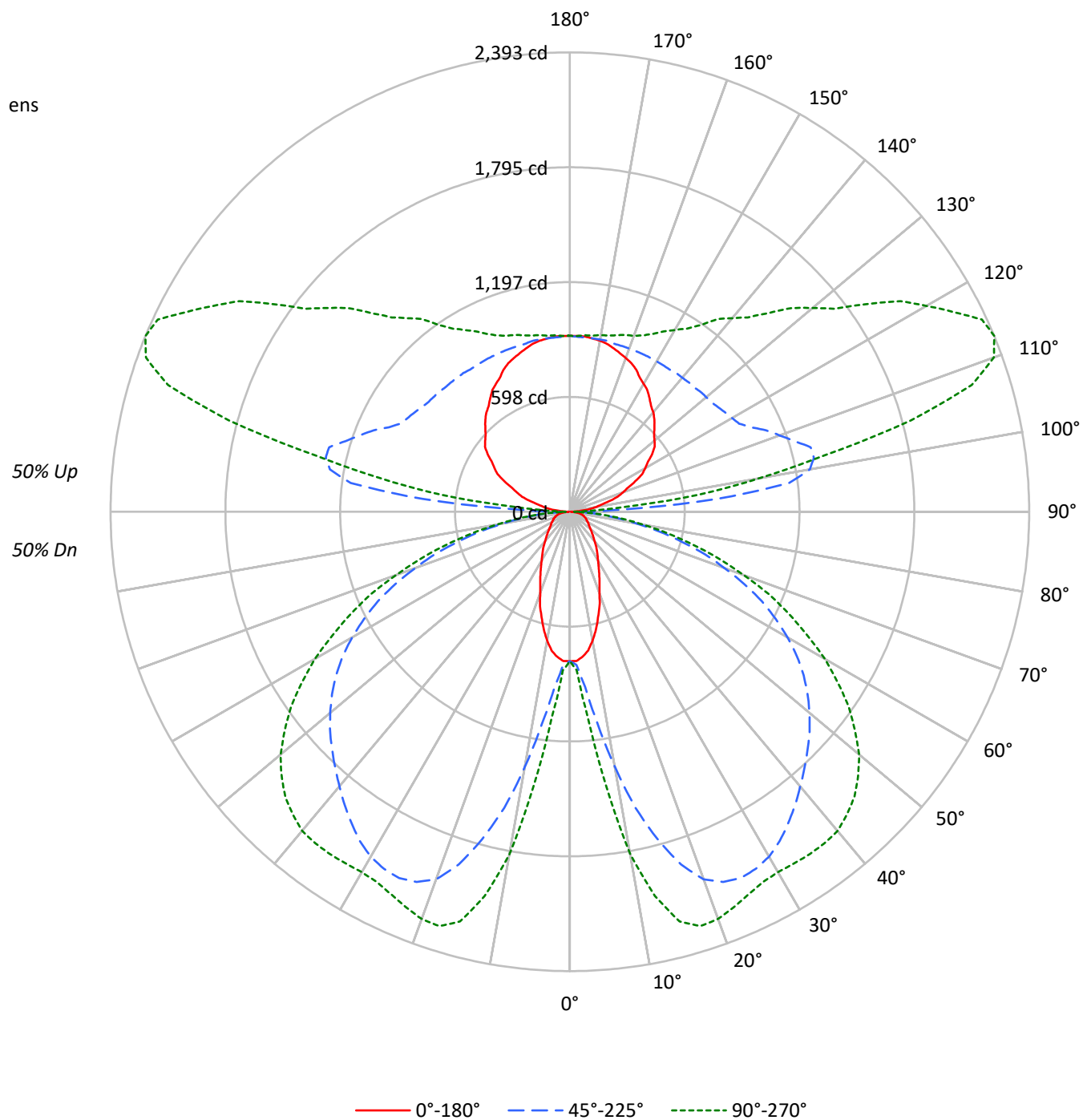
Lumens per Lamp: N/A
Luminaire Lumens: 11967.1 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 103.2
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: P937788

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-3000K

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	107	107	107	107	99	99	99	99		84	84	84		69	69	69		56	56	56
1	97	93	89	85	90	86	82	79		72	70	67		60	58	57		49	48	47
2	88	80	74	68	81	74	69	64		63	59	55		52	49	46		42	40	38
3	80	70	62	56	73	65	58	53		55	50	45		46	42	39		37	34	32
4	73	62	53	47	67	57	50	44		48	43	38		40	36	32		33	30	27
5	67	54	46	40	61	50	43	37		43	37	32		36	31	28		29	26	23
6	61	49	40	34	56	45	37	32		38	32	28		32	27	24		26	23	20
7	56	44	35	30	52	40	33	28		34	29	24		29	24	21		24	20	17
8	52	39	31	26	48	37	29	24		31	25	21		26	22	18		22	18	15
9	48	36	28	23	44	33	26	21		28	23	19		24	19	16		20	16	14
10	45	33	25	20	41	30	24	19		26	21	17		22	18	15		18	15	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4815	4815	4815
5°	4702	5564	6473
10°	4263	8108	10730
15°	3622	10591	12957
20°	2948	12270	13204
25°	2458	12837	12936
30°	2072	12915	12912
35°	1831	12697	13246
40°	1595	12415	13591
45°	1443	12206	13644
50°	1322	12020	13418
55°	1265	11746	12823
60°	1294	11225	11884
65°	1344	10435	10594
70°	1429	9094	8950
75°	1577	7409	6984
80°	1712	5132	4707
85°	1491	2718	2409

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13644 cd/sqm

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CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	0.8
10°-20°	446.2	3.7
20°-30°	780.5	6.5
30°-40°	1004.8	8.4
40°-50°	1122.3	9.4
50°-60°	1074.9	9.0
60°-70°	851.9	7.1
70°-80°	500.9	4.2
80°-90°	142.7	1.2
90°-100°	446.8	3.7
100°-110°	1174.7	9.8
110°-120°	1218.0	10.2
120°-130°	977.0	8.2
130°-140°	766.6	6.4
140°-150°	588.4	4.9
150°-160°	423.7	3.5
160°-170°	259.3	2.2
170°-180°	87.6	0.7
0°-30°	1327.5	11.1
0°-40°	2332.3	19.5
0°-60°	4529.5	37.8
0°-90°	6025.0	50.3
90°-120°	2839.5	23.7
90°-150°	5171.5	43.2
90°-180°	5942.0	49.7
0°-180°	11967.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	758	813	916	1036	1074	70
15°	568	1049	1767	2142	2210	158
25°	363	1189	2105	2198	2200	167
35°	245	1136	1982	2095	2178	153
45°	168	906	1752	2007	2097	130
55°	120	576	1487	1727	1774	109
65°	95	305	1104	1241	1259	94
75°	70	188	606	666	668	73
85°	25	58	150	165	168	27
90°	6	17	47	23	23	7
95°	59	231	770	397	270	66
105°	212	320	1299	1972	1839	224
115°	376	456	1040	2075	2368	371
125°	523	586	946	1599	1886	464
135°	623	686	917	1291	1464	482
145°	723	769	905	1101	1187	453
155°	817	840	905	994	1022	375
165°	882	893	905	941	952	249
175°	917	917	911	923	923	87
180°	917	917	917	917	917	

TEST NUMBER: P937788

CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-3000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	778.3	778.3	778.3	778.3	778.3	778.3	778.3	778.3	778.3	778.3	778.3
2.5°	778.3	778.3	783.4	785.8	790.9	793.4	798.4	803.4	818.4	820.9	826.0
5°	758.3	768.4	800.9	813.4	848.5	896.0	916.0	948.5	1016.2	1036.2	1048.7
7.5°	728.4	750.8	830.9	850.9	938.6	1063.7	1116.3	1186.4	1293.9	1346.5	1389.1
10°	680.7	728.4	870.9	918.6	1061.2	1251.4	1349.0	1446.7	1609.3	1681.9	1709.4
12.5°	628.2	705.8	913.5	978.6	1183.8	1461.6	1579.3	1686.8	1872.1	1969.7	1984.7
15°	568.1	673.2	953.6	1048.7	1313.9	1636.9	1767.0	1899.6	2072.4	2142.4	2159.9
17.5°	515.6	648.2	991.1	1091.2	1414.1	1794.5	1927.1	2037.3	2177.5	2225.0	2237.5
20°	450.5	608.2	1016.2	1146.3	1519.2	1909.7	2037.3	2122.4	2217.5	2247.5	2252.5
22.5°	403.0	565.7	1031.2	1166.3	1589.3	1979.7	2087.4	2154.9	2220.0	2230.0	2232.5
25°	362.9	518.0	1028.7	1188.8	1649.4	2022.3	2104.9	2154.9	2192.5	2197.5	2197.5
27.5°	325.4	465.5	1018.6	1193.8	1694.4	2032.2	2097.3	2132.4	2149.9	2159.9	2159.9
30°	292.8	415.5	993.6	1183.8	1714.5	2022.3	2074.8	2092.4	2109.8	2124.9	2132.4
32.5°	267.8	367.9	956.0	1163.8	1716.9	1997.2	2034.8	2044.8	2069.8	2104.9	2117.3
35°	245.3	320.4	913.5	1136.3	1701.9	1957.2	1982.3	1992.2	2042.3	2094.9	2112.4
37.5°	222.7	285.3	858.5	1088.7	1679.4	1909.7	1927.1	1944.7	2022.3	2084.8	2104.9
40°	200.3	255.3	793.4	1036.2	1644.4	1852.1	1867.1	1894.6	1997.2	2069.8	2089.8
42.5°	182.7	230.2	723.3	981.1	1599.3	1787.0	1809.5	1849.5	1967.2	2044.8	2067.3
45°	167.7	205.2	648.2	906.0	1541.7	1719.4	1751.9	1807.0	1932.2	2007.3	2027.3
47.5°	152.6	187.7	570.6	828.4	1479.2	1651.8	1694.4	1757.0	1884.6	1957.2	1974.8
50°	140.1	170.2	493.1	745.8	1411.6	1579.3	1629.4	1694.4	1824.6	1892.1	1914.6
52.5°	130.2	155.2	420.4	663.3	1334.0	1504.1	1561.7	1629.4	1751.9	1817.0	1832.1
55°	120.1	142.7	357.9	575.6	1253.9	1424.1	1486.7	1551.8	1671.9	1727.0	1736.9
57.5°	115.2	132.6	305.4	493.1	1168.8	1334.0	1404.1	1464.1	1576.8	1619.3	1629.4
60°	107.6	125.1	265.3	423.0	1076.2	1248.9	1309.0	1369.1	1464.1	1499.2	1506.7
62.5°	100.1	120.1	235.3	355.4	981.1	1148.8	1208.8	1264.0	1344.0	1369.1	1379.0
65°	95.1	115.2	212.8	305.4	883.5	1043.7	1103.7	1151.3	1216.3	1241.4	1246.4
67.5°	90.1	110.1	195.2	262.8	785.8	938.6	983.6	1028.7	1078.7	1103.7	1106.3
70°	82.6	105.1	180.2	232.8	685.8	818.4	855.9	903.5	943.6	956.0	963.6
72.5°	77.6	97.6	170.2	210.2	583.1	703.3	738.3	765.8	800.9	813.4	813.4
75°	70.1	87.6	160.2	187.7	478.0	575.6	605.7	633.2	660.7	665.7	658.3
77.5°	62.6	77.6	137.6	157.7	372.9	455.5	480.6	495.6	518.0	523.1	525.6
80°	52.6	67.5	107.6	122.7	270.3	335.3	352.9	365.4	385.4	385.4	390.5
82.5°	40.0	52.6	77.6	87.6	182.7	230.2	245.3	252.8	265.3	265.3	265.3
85°	25.0	32.5	50.1	57.6	110.1	140.1	150.2	152.6	162.7	165.2	165.2
87.5°	12.5	17.6	32.5	35.0	57.6	72.6	72.6	77.6	77.6	75.1	72.6
90°	6.1	11.0	16.0	17.3	27.1	40.2	46.7	41.5	31.2	23.4	23.4
92.5°	24.6	66.5	108.3	118.7	166.9	231.1	263.3	230.7	165.6	116.8	112.2
95°	59.1	135.6	212.2	231.3	410.8	650.0	769.6	686.7	521.0	396.8	382.7
97.5°	102.1	169.7	237.2	254.1	553.2	952.2	1151.6	1099.3	994.6	916.0	889.2
100°	135.4	196.6	257.8	273.1	605.1	1047.7	1269.1	1272.9	1280.6	1286.3	1254.4
102.5°	163.7	220.9	278.0	292.3	629.0	1077.9	1302.3	1369.1	1502.5	1602.5	1575.2
105°	211.6	260.0	308.4	320.5	646.6	1081.3	1298.7	1448.2	1747.3	1971.6	1956.9
107.5°	260.8	306.0	351.1	362.4	649.9	1033.1	1224.8	1433.4	1850.6	2163.6	2167.1
110°	294.0	334.7	375.6	385.7	644.9	990.5	1163.3	1396.5	1862.9	2212.8	2228.1

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CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	326.7	365.5	404.4	414.0	645.1	953.3	1107.3	1346.0	1823.4	2181.4	2204.9
115°	375.9	411.7	447.4	456.4	651.1	910.5	1040.2	1270.2	1730.1	2075.0	2107.7
117.5°	424.5	457.0	489.5	497.6	663.1	883.8	994.1	1201.6	1616.6	1927.9	1964.1
120°	452.8	483.4	514.0	521.7	673.0	874.8	975.6	1165.3	1544.5	1828.9	1864.0
122.5°	480.5	511.3	542.3	550.0	687.1	870.0	961.5	1132.3	1473.8	1729.8	1764.5
125°	522.9	551.1	579.3	586.3	706.3	866.2	946.2	1091.2	1381.3	1598.9	1630.8
127.5°	557.4	585.8	614.3	621.4	725.3	863.9	933.2	1057.8	1306.8	1493.7	1520.6
130°	575.8	606.5	637.1	644.7	739.3	865.3	928.3	1039.1	1260.9	1427.2	1452.1
132.5°	594.9	625.5	656.1	663.8	750.5	866.2	924.0	1023.3	1221.8	1370.6	1392.9
135°	623.2	651.1	679.0	686.0	762.9	865.3	916.6	999.7	1165.9	1290.7	1309.9
137.5°	652.0	679.6	707.4	714.3	781.3	870.7	915.4	985.7	1126.2	1231.6	1247.3
140°	676.1	701.5	727.0	733.3	792.5	871.5	911.1	971.8	1093.2	1184.2	1198.9
142.5°	694.5	718.1	741.6	747.5	802.0	874.7	911.1	964.4	1071.0	1151.0	1163.6
145°	722.8	743.3	763.9	769.0	814.3	874.8	905.0	948.5	1035.8	1101.2	1110.7
147.5°	751.1	771.1	791.0	796.0	832.3	880.7	905.0	939.3	1007.9	1059.4	1067.2
150°	769.6	787.6	805.7	810.2	841.7	883.9	905.0	933.9	991.8	1035.3	1041.7
152.5°	788.7	802.4	816.0	819.5	848.0	885.9	905.0	929.7	979.2	1016.3	1021.1
155°	817.0	827.1	837.1	839.7	861.5	890.5	905.0	924.7	964.0	993.5	996.7
157.5°	837.9	847.8	857.5	860.0	875.0	895.0	905.0	920.2	950.9	973.9	976.1
160°	852.0	859.7	867.4	869.3	881.2	897.1	905.0	918.1	944.3	964.0	965.3
162.5°	866.2	871.9	877.6	879.1	887.7	899.2	905.0	916.0	938.2	954.7	955.9
165°	881.6	886.7	891.9	893.2	897.2	902.4	905.0	912.8	928.7	940.6	941.9
167.5°	895.7	898.1	900.6	901.2	904.5	908.9	911.1	916.3	926.6	934.4	935.0
170°	905.0	907.4	909.9	910.5	910.7	911.0	911.1	916.3	926.6	934.4	934.4
172.5°	909.9	910.4	911.0	911.1	911.1	911.1	911.1	915.2	923.4	929.5	929.0
175°	916.6	916.6	916.6	916.6	914.7	912.2	911.1	913.6	918.9	922.8	922.8
177.5°	916.6	916.6	916.6	916.6	915.2	913.3	912.3	914.4	918.5	921.5	920.9
180°	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6	916.6

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CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-6-3000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	778.3	778.3
2.5°	830.9	826.0
5°	1068.7	1073.8
7.5°	1439.2	1436.6
10°	1789.5	1812.1
12.5°	2044.8	2049.8
15°	2200.0	2210.0
17.5°	2260.0	2262.6
20°	2262.6	2257.5
22.5°	2235.0	2230.0
25°	2202.4	2200.0
27.5°	2172.5	2174.9
30°	2159.9	2167.4
32.5°	2159.9	2172.5
35°	2165.0	2177.5
37.5°	2162.4	2177.5
40°	2152.4	2169.9
42.5°	2124.9	2137.5
45°	2082.3	2097.3
47.5°	2027.3	2037.3
50°	1957.2	1967.2
52.5°	1869.6	1872.1
55°	1764.4	1774.5
57.5°	1651.8	1654.3
60°	1526.7	1534.2
62.5°	1394.1	1394.1
65°	1253.9	1258.9
67.5°	1108.8	1121.3
70°	961.1	963.6
72.5°	815.9	815.9
75°	665.7	668.2
77.5°	523.1	523.1
80°	387.9	390.5
82.5°	267.8	272.8
85°	167.7	167.7
87.5°	77.6	70.1
90°	23.4	23.4
92.5°	93.6	75.0
95°	326.4	270.1
97.5°	782.0	674.8
100°	1126.7	999.0
102.5°	1465.8	1356.4
105°	1898.1	1839.4
107.5°	2181.4	2195.6
110°	2289.4	2350.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2299.0	2393.0
115°	2238.0	2368.5
117.5°	2108.8	2253.4
120°	2004.6	2145.1
122.5°	1903.2	2041.8
125°	1758.4	1886.1
127.5°	1628.4	1736.1
130°	1551.7	1651.2
132.5°	1482.1	1571.2
135°	1386.7	1463.5
137.5°	1310.2	1373.1
140°	1257.7	1316.5
142.5°	1214.3	1264.8
145°	1149.1	1187.3
147.5°	1099.0	1130.7
150°	1067.4	1093.2
152.5°	1040.5	1060.0
155°	1009.6	1022.4
157.5°	985.1	994.1
160°	970.5	975.6
162.5°	960.9	965.8
165°	947.2	952.3
167.5°	937.2	939.4
170°	934.4	934.4
172.5°	927.1	925.3
175°	922.8	922.8
177.5°	918.8	916.6
180°	916.6	916.6

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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	6.49	7.40	7.44	8.37	9.63	19.66	20.56	20.60	21.53	22.79
	3H	7.20	8.01	8.16	8.99	10.28	21.50	22.31	22.45	23.29	24.57
	4H	7.50	8.27	8.47	9.25	10.55	22.14	22.91	23.11	23.89	25.18
	6H	7.76	8.47	8.74	9.45	10.76	22.57	23.28	23.55	24.26	25.57
	8H	7.83	8.50	8.81	9.51	10.81	22.69	23.36	23.68	24.37	25.67
	12H	7.84	8.49	8.84	9.49	10.82	22.76	23.40	23.75	24.40	25.73
4H	2H	13.71	14.47	14.68	15.46	16.75	19.94	20.71	20.92	21.69	22.98
	3H	15.28	15.92	16.26	16.93	18.24	21.98	22.63	22.97	23.64	24.95
	4H	15.37	15.96	16.37	16.97	18.30	22.75	23.34	23.74	24.34	25.67
	6H	15.39	15.90	16.40	16.92	18.25	23.29	23.80	24.29	24.82	26.15
	8H	15.37	15.84	16.38	16.86	18.21	23.45	23.92	24.46	24.94	26.29
	12H	15.32	15.76	16.35	16.79	18.14	23.54	23.97	24.57	25.01	26.36
8H	4H	16.82	17.30	17.83	18.32	19.66	22.81	23.29	23.82	24.31	25.65
	6H	17.06	17.46	18.10	18.52	19.86	23.44	23.83	24.47	24.90	26.24
	8H	17.08	17.43	18.12	18.48	19.84	23.66	24.01	24.70	25.05	26.41
	12H	17.05	17.36	18.10	18.40	19.81	23.80	24.11	24.85	25.15	26.55
12H	4H	16.96	17.39	17.99	18.43	19.78	22.77	23.20	23.80	24.23	25.58
	6H	17.32	17.67	18.36	18.72	20.08	23.42	23.77	24.47	24.82	26.18
	8H	17.39	17.70	18.44	18.74	20.15	23.65	23.96	24.70	25.00	26.41