

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: P936754

Luminaire Tested: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936754
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-93050-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

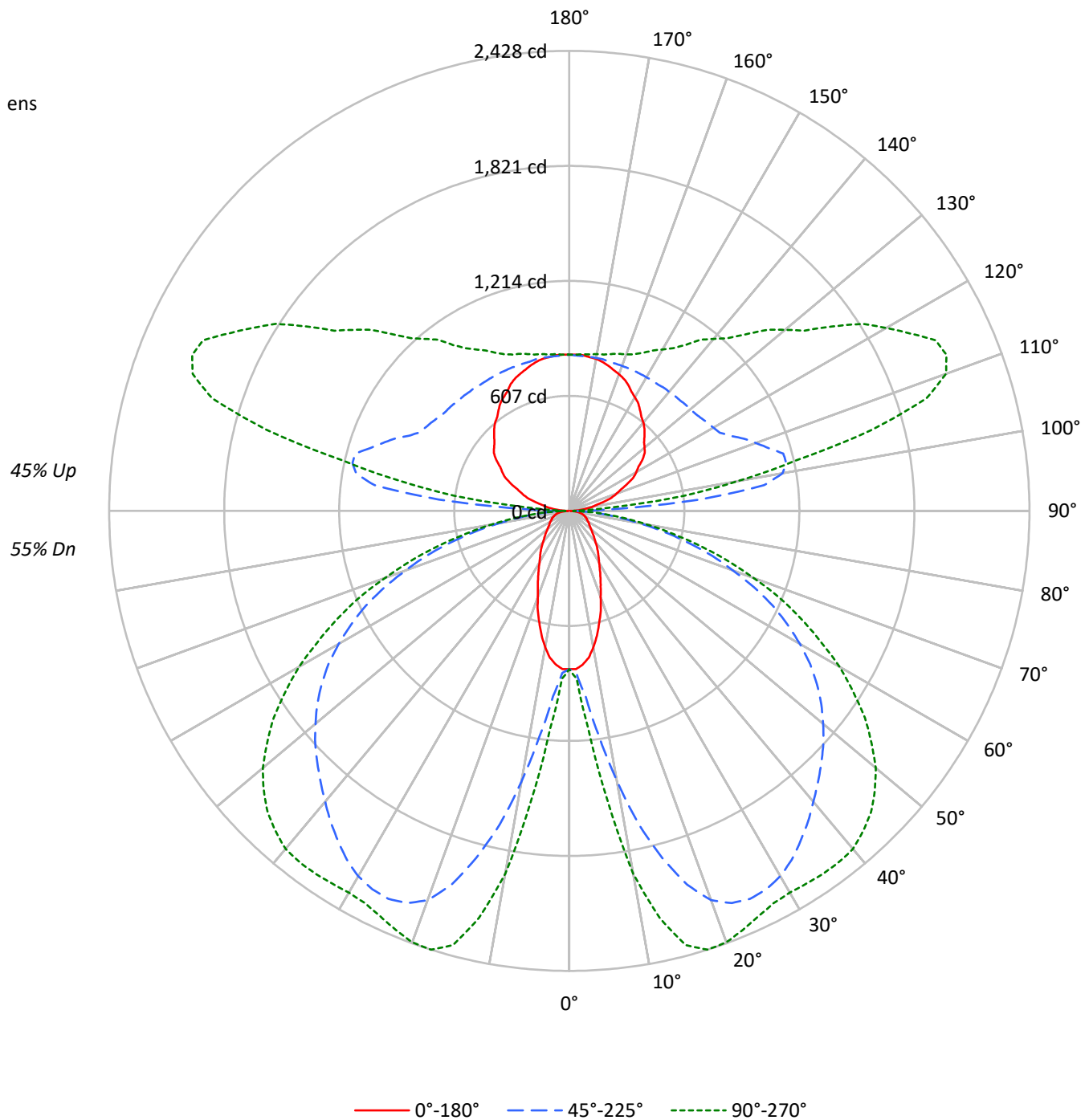
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11812.7 lumens
Efficiency: N/A
Efficacy: 108.2 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: P936754
CATALOG NUMBER: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P936754

CATALOG NUMBER: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

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°	2584	2584	2584
5°	2525	2987	3473
10°	2291	4355	5758
15°	1948	5692	6953
20°	1587	6597	7086
25°	1324	6905	6942
30°	1117	6951	6928
35°	988	6837	7108
40°	862	6689	7293
45°	781	6581	7321
50°	717	6484	7200
55°	687	6342	6881
60°	704	6066	6377
65°	734	5646	5685
70°	783	4927	4803
75°	872	4021	3747
80°	959	2792	2525
85°	872	1484	1293

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7321 cd/sqm



TEST NUMBER: P936754

CATALOG NUMBER: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	0.9
10°-20°	478.9	4.1
20°-30°	837.7	7.1
30°-40°	1078.4	9.1
40°-50°	1204.5	10.2
50°-60°	1153.6	9.8
60°-70°	914.3	7.7
70°-80°	537.6	4.6
80°-90°	152.5	1.3
90°-100°	402.1	3.4
100°-110°	1057.1	8.9
110°-120°	1096.1	9.3
120°-130°	879.2	7.4
130°-140°	689.9	5.8
140°-150°	529.5	4.5
150°-160°	381.3	3.2
160°-170°	233.3	2.0
170°-180°	78.8	0.7
0°-30°	1424.7	12.1
0°-40°	2503.0	21.2
0°-60°	4861.1	41.2
0°-90°	6465.5	54.7
90°-120°	2555.2	21.6
90°-150°	4653.8	39.4
90°-180°	5347.0	45.3
0°-180°	11812.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	814	873	983	1112	1152	75
15°	610	1126	1896	2299	2372	170
25°	390	1276	2259	2358	2361	179
35°	263	1220	2127	2248	2337	164
45°	180	972	1880	2154	2251	139
55°	129	618	1596	1853	1904	117
65°	102	328	1185	1332	1351	101
75°	75	201	650	714	717	79
85°	27	62	161	177	180	29
90°	6	16	42	21	21	6
95°	53	208	692	357	243	59
105°	190	288	1169	1774	1655	202
115°	338	411	936	1867	2131	334
125°	471	528	851	1439	1697	418
135°	561	617	825	1162	1317	434
145°	650	692	814	991	1068	408
155°	735	756	814	894	920	338
165°	793	804	814	846	857	224
175°	825	825	820	830	830	78
180°	825	825	825	825	825	



TEST NUMBER: P936754

CATALOG NUMBER: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3
2.5°	835.3	835.3	840.7	843.4	848.8	851.4	856.8	862.2	878.3	881.0	886.4
5°	813.8	824.6	859.5	872.9	910.5	961.6	983.1	1018.1	1090.6	1112.1	1125.5
7.5°	781.6	805.8	891.7	913.2	1007.2	1141.6	1198.0	1273.2	1388.7	1445.1	1490.8
10°	730.6	781.6	934.7	985.7	1138.9	1343.1	1447.8	1552.6	1727.1	1805.0	1834.6
12.5°	674.2	757.4	980.4	1050.3	1270.5	1568.7	1694.9	1810.4	2009.2	2113.9	2130.0
15°	609.7	722.5	1023.4	1125.5	1410.2	1756.7	1896.4	2038.7	2224.0	2299.3	2318.1
17.5°	553.3	695.7	1063.7	1171.2	1517.6	1925.9	2068.3	2186.4	2336.9	2387.9	2401.3
20°	483.5	652.7	1090.6	1230.2	1630.5	2049.5	2186.4	2277.8	2379.8	2412.1	2417.4
22.5°	432.4	607.0	1106.7	1251.7	1705.7	2124.7	2240.2	2312.7	2382.5	2393.3	2395.9
25°	389.5	556.0	1104.0	1275.9	1770.1	2170.3	2259.0	2312.7	2353.0	2358.3	2358.3
27.5°	349.2	499.6	1093.3	1281.3	1818.5	2181.1	2250.9	2288.5	2307.3	2318.1	2318.1
30°	314.3	445.9	1066.4	1270.5	1840.0	2170.3	2226.7	2245.5	2264.3	2280.4	2288.5
32.5°	287.4	394.8	1026.1	1249.0	1842.6	2143.5	2183.8	2194.5	2221.4	2259.0	2272.4
35°	263.2	343.8	980.4	1219.5	1826.5	2100.5	2127.4	2138.1	2191.8	2248.2	2267.0
37.5°	239.0	306.2	921.3	1168.5	1802.4	2049.5	2068.3	2087.1	2170.3	2237.5	2259.0
40°	214.9	274.0	851.4	1112.1	1764.7	1987.7	2003.8	2033.3	2143.5	2221.4	2242.8
42.5°	196.1	247.1	776.2	1053.0	1716.4	1917.8	1942.0	1985.0	2111.2	2194.5	2218.7
45°	180.0	220.2	695.7	972.3	1654.6	1845.3	1880.2	1939.3	2073.6	2154.2	2175.7
47.5°	163.8	201.4	612.4	889.0	1587.5	1772.8	1818.5	1885.6	2022.6	2100.5	2119.3
50°	150.4	182.6	529.1	800.4	1515.0	1694.9	1748.6	1818.5	1958.1	2030.7	2054.8
52.5°	139.7	166.5	451.2	711.8	1431.7	1614.3	1676.1	1748.6	1880.2	1950.1	1966.2
55°	128.9	153.1	384.1	617.8	1345.7	1528.4	1595.5	1665.4	1794.3	1853.4	1864.1
57.5°	123.6	142.4	327.7	529.1	1254.4	1431.7	1506.9	1571.4	1692.2	1737.9	1748.6
60°	115.5	134.3	284.7	453.9	1155.0	1340.4	1404.8	1469.3	1571.4	1609.0	1617.0
62.5°	107.4	128.9	252.5	381.4	1053.0	1232.9	1297.4	1356.5	1442.4	1469.3	1480.0
65°	102.1	123.6	228.3	327.7	948.1	1120.1	1184.6	1235.6	1305.5	1332.3	1337.7
67.5°	96.7	118.2	209.5	282.0	843.4	1007.2	1055.7	1104.0	1157.7	1184.6	1187.3
70°	88.6	112.8	193.4	249.8	735.9	878.3	918.6	969.6	1012.6	1026.1	1034.2
72.5°	83.3	104.8	182.6	225.6	625.8	754.7	792.4	821.9	859.5	872.9	872.9
75°	75.2	94.0	171.9	201.4	513.0	617.8	650.0	679.5	709.1	714.5	706.4
77.5°	67.1	83.3	147.7	169.2	400.2	488.8	515.7	531.8	556.0	561.4	564.0
80°	56.4	72.5	115.5	131.6	290.1	359.9	378.7	392.1	413.6	413.6	419.0
82.5°	43.0	56.4	83.3	94.0	196.1	247.1	263.2	271.3	284.7	284.7	284.7
85°	26.9	34.9	53.7	61.8	118.2	150.4	161.2	163.8	174.6	177.3	177.3
87.5°	13.4	18.8	34.9	37.6	61.8	77.9	77.9	83.3	83.3	80.6	77.9
90°	5.6	9.9	14.4	15.5	24.4	36.2	42.1	37.4	28.0	21.0	21.0
92.5°	22.1	59.7	97.4	106.8	150.1	208.0	236.9	207.6	149.1	105.2	101.0
95°	53.2	122.0	191.0	208.2	369.6	584.9	692.5	617.9	468.9	357.1	344.3
97.5°	91.9	152.7	213.4	228.7	497.9	856.8	1036.3	989.2	895.0	824.3	800.2
100°	121.8	176.9	232.0	245.8	544.5	942.9	1142.1	1145.5	1152.4	1157.5	1128.8
102.5°	147.3	198.7	250.1	263.0	565.9	970.0	1172.0	1231.9	1352.0	1442.1	1417.5
105°	190.4	233.9	277.5	288.4	581.8	973.0	1168.7	1303.2	1572.3	1774.2	1761.0
107.5°	234.8	275.3	316.0	326.1	584.8	929.8	1102.2	1290.0	1665.5	1947.0	1950.3
110°	264.7	301.3	338.0	347.1	580.3	891.4	1046.9	1256.7	1676.5	1991.3	2005.1



TEST NUMBER: P936754

CATALOG NUMBER: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	293.9	328.8	363.8	372.5	580.5	857.8	996.5	1211.3	1640.8	1963.1	1984.2
115°	338.2	370.5	402.7	410.8	585.9	819.4	936.1	1143.0	1556.9	1867.3	1896.6
117.5°	381.9	411.2	440.5	447.8	596.7	795.3	894.6	1081.4	1454.8	1734.9	1767.4
120°	407.5	435.0	462.5	469.4	605.6	787.2	878.0	1048.7	1389.9	1645.9	1677.5
122.5°	432.3	460.2	487.9	494.9	618.4	783.0	865.2	1018.9	1326.2	1556.7	1587.8
125°	470.6	495.9	521.3	527.6	635.6	779.5	851.4	982.0	1243.0	1438.8	1467.5
127.5°	501.6	527.2	552.8	559.1	652.7	777.4	839.8	951.9	1176.0	1344.1	1368.4
130°	518.2	545.8	573.3	580.2	665.2	778.7	835.4	935.2	1134.7	1284.3	1306.7
132.5°	535.3	562.9	590.5	597.4	675.4	779.5	831.5	920.8	1099.4	1233.4	1253.4
135°	560.8	585.9	611.0	617.2	686.4	778.7	824.9	899.7	1049.3	1161.5	1178.8
137.5°	586.8	611.7	636.6	642.7	703.1	783.6	823.8	887.0	1013.5	1108.3	1122.5
140°	608.4	631.3	654.1	659.8	713.2	784.3	819.8	874.5	983.8	1065.7	1078.9
142.5°	625.0	646.1	667.4	672.6	721.7	787.2	819.8	867.8	963.8	1035.8	1047.2
145°	650.4	668.9	687.3	692.0	732.8	787.2	814.4	853.6	932.1	990.9	999.5
147.5°	676.0	693.9	711.9	716.3	749.0	792.6	814.4	845.3	907.0	953.3	960.5
150°	692.5	708.7	725.0	729.1	757.5	795.4	814.4	840.4	892.5	931.7	937.5
152.5°	709.7	722.0	734.3	737.4	763.1	797.3	814.4	836.7	881.2	914.6	918.9
155°	735.1	744.3	753.4	755.6	775.3	801.3	814.4	832.1	867.5	894.1	896.9
157.5°	754.0	762.9	771.7	773.9	787.4	805.4	814.4	828.2	855.6	876.3	878.4
160°	766.7	773.6	780.5	782.2	793.0	807.2	814.4	826.2	849.7	867.5	868.6
162.5°	779.5	784.7	789.8	791.1	798.9	809.2	814.4	824.3	844.2	859.1	860.2
165°	793.3	798.0	802.6	803.8	807.3	812.0	814.4	821.5	835.8	846.4	847.6
167.5°	806.0	808.2	810.4	811.0	813.9	817.9	819.8	824.5	833.9	840.9	841.4
170°	814.4	816.5	818.8	819.3	819.5	819.7	819.8	824.5	833.9	840.9	840.9
172.5°	818.8	819.2	819.7	819.8	819.8	819.8	819.8	823.5	830.9	836.5	836.0
175°	824.9	824.9	824.9	824.9	823.1	820.9	819.8	822.2	826.9	830.4	830.4
177.5°	824.9	824.9	824.9	824.9	823.6	821.9	821.0	822.9	826.6	829.3	828.8
180°	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9



TEST NUMBER: P936754

CATALOG NUMBER: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	835.3	835.3
2.5°	891.7	886.4
5°	1147.0	1152.4
7.5°	1544.5	1541.8
10°	1920.5	1944.7
12.5°	2194.5	2199.9
15°	2361.0	2371.8
17.5°	2425.5	2428.2
20°	2428.2	2422.8
22.5°	2398.6	2393.3
25°	2363.7	2361.0
27.5°	2331.5	2334.2
30°	2318.1	2326.1
32.5°	2318.1	2331.5
35°	2323.4	2336.9
37.5°	2320.7	2336.9
40°	2310.0	2328.8
42.5°	2280.4	2293.9
45°	2234.8	2250.9
47.5°	2175.7	2186.4
50°	2100.5	2111.2
52.5°	2006.5	2009.2
55°	1893.7	1904.4
57.5°	1772.8	1775.5
60°	1638.5	1646.6
62.5°	1496.2	1496.2
65°	1345.7	1351.1
67.5°	1190.0	1203.4
70°	1031.5	1034.2
72.5°	875.6	875.6
75°	714.5	717.1
77.5°	561.4	561.4
80°	416.3	419.0
82.5°	287.4	292.8
85°	180.0	180.0
87.5°	83.3	75.2
90°	21.0	21.0
92.5°	84.2	67.5
95°	293.7	243.0
97.5°	703.7	607.3
100°	1013.9	899.1
102.5°	1319.1	1220.7
105°	1708.2	1655.3
107.5°	1963.0	1975.8
110°	2060.1	2115.3



TEST NUMBER: P936754

CATALOG NUMBER: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2068.9	2153.5
115°	2014.0	2131.4
117.5°	1897.6	2027.8
120°	1804.0	1930.4
122.5°	1712.6	1837.4
125°	1582.4	1697.3
127.5°	1465.3	1562.2
130°	1396.3	1485.9
132.5°	1333.7	1413.9
135°	1247.9	1317.0
137.5°	1179.0	1235.6
140°	1131.8	1184.7
142.5°	1092.7	1138.2
145°	1034.0	1068.5
147.5°	989.0	1017.5
150°	960.6	983.8
152.5°	936.4	953.9
155°	908.6	920.1
157.5°	886.4	894.6
160°	873.4	878.0
162.5°	864.7	869.2
165°	852.3	857.0
167.5°	843.4	845.4
170°	840.9	840.9
172.5°	834.3	832.6
175°	830.4	830.4
177.5°	826.8	824.9
180°	824.9	824.9



TEST NUMBER: P936754
 CATALOG NUMBER: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-12-3500K

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	4.73	5.68	5.64	6.61	7.81	17.92	18.87	18.83	19.80	21.00
	3H	5.44	6.29	6.36	7.24	8.46	19.77	20.63	20.69	21.57	22.79
	4H	5.74	6.55	6.68	7.50	8.73	20.43	21.23	21.36	22.18	23.41
	6H	6.00	6.74	6.94	7.70	8.94	20.86	21.61	21.81	22.56	23.81
	8H	6.07	6.78	7.02	7.75	8.99	20.99	21.70	21.94	22.67	23.91
	12H	6.09	6.77	7.05	7.73	9.00	21.06	21.74	22.02	22.71	23.97
4H	2H	11.96	12.77	12.90	13.72	14.95	18.21	19.01	19.14	19.96	21.19
	3H	13.54	14.22	14.49	15.19	16.44	20.26	20.94	21.21	21.92	23.16
	4H	13.64	14.26	14.60	15.23	16.50	21.04	21.66	22.00	22.63	23.90
	6H	13.65	14.19	14.62	15.18	16.45	21.59	22.12	22.56	23.12	24.39
	8H	13.63	14.13	14.61	15.12	16.40	21.75	22.26	22.73	23.24	24.53
	12H	13.59	14.05	14.59	15.05	16.34	21.86	22.31	22.85	23.31	24.60
8H	4H	15.09	15.59	16.07	16.58	17.87	21.11	21.61	22.08	22.59	23.88
	6H	15.34	15.75	16.34	16.78	18.07	21.74	22.16	22.74	23.19	24.47
	8H	15.36	15.72	16.37	16.74	18.04	21.97	22.34	22.98	23.35	24.65
	12H	15.33	15.65	16.34	16.66	18.01	22.12	22.44	23.13	23.45	24.80
12H	4H	15.24	15.69	16.24	16.70	17.99	21.06	21.52	22.06	22.52	23.81
	6H	15.60	15.97	16.61	16.98	18.28	21.73	22.10	22.74	23.11	24.41
	8H	15.67	16.00	16.69	17.01	18.35	21.97	22.29	22.98	23.30	24.65