

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: P938290

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-6-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938290
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-6-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

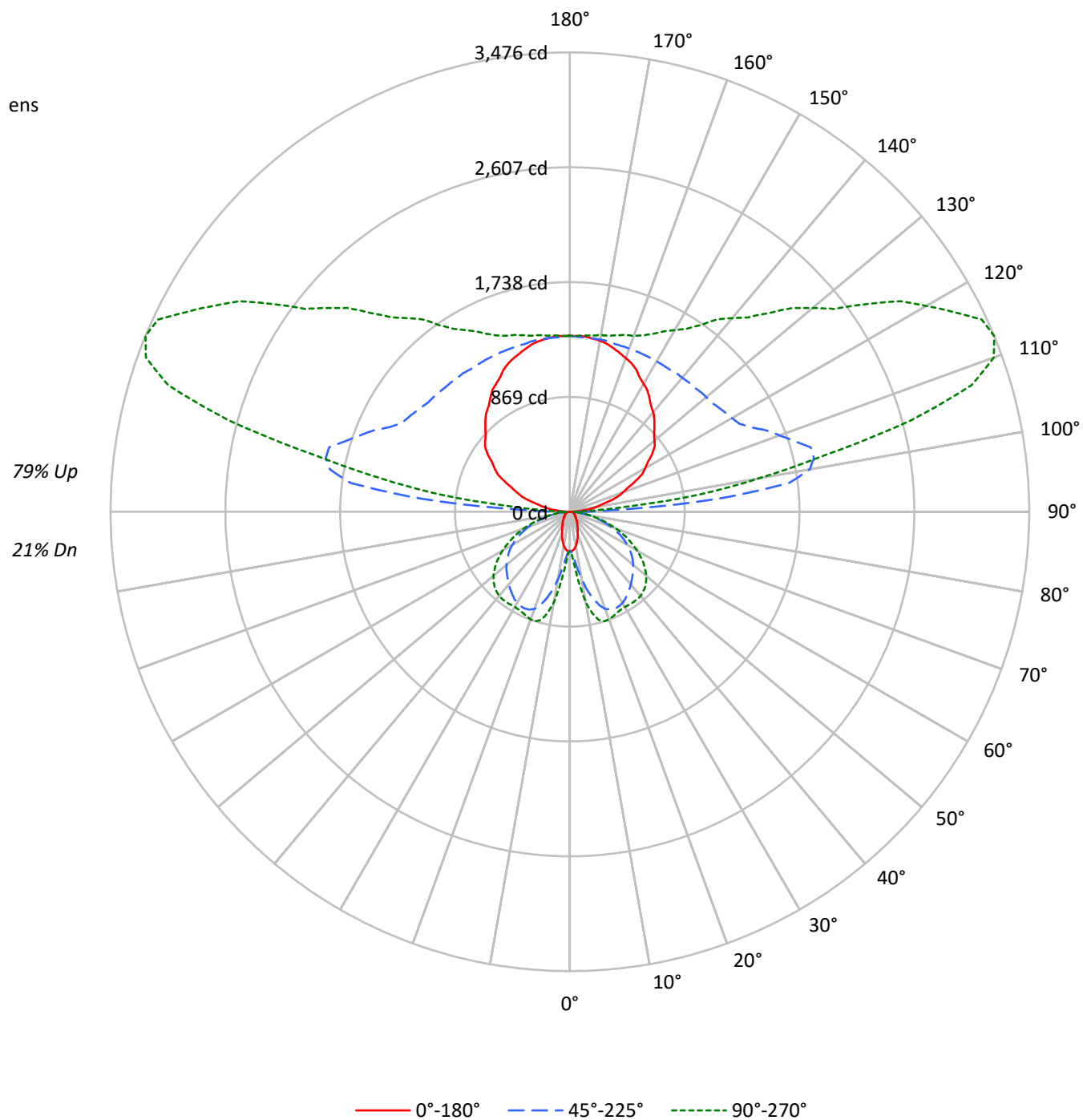
Lumens per Lamp: N/A
Luminaire Lumens: 10946.2 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 83.4
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: P938290

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-6-4000K

Luminous Intensity Polar Plot



TEST NUMBER: P938290

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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	50	30	10
RCR																				
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1848	1848	1848
5°	1805	2135	2484
10°	1637	3112	4118
15°	1390	4064	4973
20°	1132	4710	5068
25°	943	4927	4965
30°	795	4957	4956
35°	703	4873	5084
40°	612	4765	5217
45°	554	4685	5237
50°	508	4613	5150
55°	486	4508	4922
60°	498	4308	4562
65°	516	4005	4065
70°	548	3490	3436
75°	605	2843	2681
80°	657	1969	1806
85°	572	1044	925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5237 cd/sqm

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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-6-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	0.4
10°-20°	171.3	1.6
20°-30°	299.6	2.7
30°-40°	385.6	3.5
40°-50°	430.7	3.9
50°-60°	412.6	3.8
60°-70°	327.0	3.0
70°-80°	192.3	1.8
80°-90°	58.5	0.5
90°-100°	648.9	5.9
100°-110°	1706.1	15.6
110°-120°	1769.0	16.2
120°-130°	1418.9	13.0
130°-140°	1113.4	10.2
140°-150°	854.6	7.8
150°-160°	615.4	5.6
160°-170°	376.6	3.4
170°-180°	127.2	1.2
0°-30°	509.5	4.7
0°-40°	895.1	8.2
0°-60°	1738.5	15.9
0°-90°	2316.2	21.2
90°-120°	4124.0	37.7
90°-150°	7510.9	68.6
90°-180°	8630.0	78.8
0°-180°	10946.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	299	299	299	299	299	
5°	291	312	352	398	412	27
15°	218	402	678	822	848	61
25°	139	456	808	843	844	64
35°	94	436	761	804	836	59
45°	64	348	672	770	805	50
55°	46	221	571	663	681	42
65°	36	117	424	476	483	36
75°	27	72	232	256	256	28
85°	10	22	58	63	64	10
90°	9	25	68	34	34	8
95°	86	336	1118	576	392	95
105°	307	466	1886	2864	2671	326
115°	546	663	1511	3014	3440	539
125°	759	852	1374	2322	2739	674
135°	905	996	1331	1874	2126	700
145°	1050	1117	1314	1599	1724	658
155°	1186	1220	1314	1443	1485	545
165°	1280	1297	1314	1366	1383	361
175°	1331	1331	1323	1340	1340	126
180°	1331	1331	1331	1331	1331	

TEST NUMBER: P938290

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-6-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	298.7	298.7	298.7	298.7	298.7	298.7	298.7	298.7	298.7	298.7	298.7
2.5°	298.7	298.7	300.6	301.6	303.6	304.5	306.5	308.4	314.1	315.1	317.0
5°	291.1	294.9	307.4	312.2	325.7	343.9	351.5	364.0	390.0	397.7	402.5
7.5°	279.5	288.2	318.9	326.6	360.2	408.3	428.4	455.3	496.6	516.8	533.2
10°	261.3	279.5	334.2	352.6	407.3	480.3	517.8	555.2	617.7	645.5	656.1
12.5°	241.1	270.9	350.6	375.6	454.4	561.0	606.1	647.5	718.5	756.0	761.7
15°	218.0	258.4	366.0	402.5	504.3	628.2	678.1	729.1	795.4	822.3	829.0
17.5°	197.9	248.8	380.4	418.9	542.7	688.7	739.6	782.0	835.7	854.0	858.7
20°	173.0	233.4	390.0	440.0	583.1	733.0	782.0	814.6	851.1	862.7	864.6
22.5°	154.6	217.1	395.8	447.6	610.0	759.8	801.1	827.0	852.1	855.9	856.8
25°	139.3	198.8	394.8	456.3	633.1	776.1	807.8	827.0	841.5	843.4	843.4
27.5°	124.9	178.7	391.0	458.2	650.4	780.0	805.0	818.4	825.1	829.0	829.0
30°	112.4	159.5	381.3	454.4	658.0	776.1	796.4	803.1	809.7	815.6	818.4
32.5°	102.8	141.2	366.9	446.7	658.9	766.6	781.0	784.8	794.4	807.8	812.7
35°	94.2	123.0	350.6	436.1	653.2	751.2	760.8	764.7	783.9	804.0	810.7
37.5°	85.5	109.5	329.5	417.9	644.5	733.0	739.6	746.4	776.1	800.2	807.8
40°	76.9	98.0	304.5	397.7	631.2	710.8	716.6	727.1	766.6	794.4	802.1
42.5°	70.1	88.3	277.6	376.6	613.8	685.9	694.5	709.9	755.0	784.8	793.4
45°	64.4	78.8	248.8	347.7	591.7	659.9	672.4	693.5	741.6	770.4	778.0
47.5°	58.6	72.0	219.0	317.9	567.7	634.0	650.4	674.3	723.3	751.2	757.9
50°	53.8	65.3	189.3	286.2	541.8	606.1	625.3	650.4	700.3	726.2	734.9
52.5°	49.9	59.6	161.4	254.6	512.0	577.3	599.5	625.3	672.4	697.4	703.2
55°	46.1	54.7	137.3	220.9	481.2	546.5	570.6	595.5	641.7	662.8	666.7
57.5°	44.2	50.9	117.2	189.3	448.6	512.0	538.9	561.9	605.2	621.5	625.3
60°	41.4	48.0	101.8	162.4	413.0	479.3	502.4	525.4	561.9	575.4	578.3
62.5°	38.4	46.1	90.3	136.4	376.6	440.9	463.9	485.1	515.8	525.4	529.3
65°	36.5	44.2	81.7	117.2	339.1	400.5	423.6	441.9	466.8	476.4	478.4
67.5°	34.6	42.3	75.0	100.8	301.6	360.2	377.5	394.8	414.0	423.6	424.6
70°	31.7	40.3	69.1	89.3	263.2	314.1	328.5	346.8	362.1	366.9	369.9
72.5°	29.8	37.4	65.3	80.7	223.9	269.9	283.3	293.9	307.4	312.2	312.2
75°	26.9	33.6	61.5	72.0	183.5	220.9	232.4	243.0	253.6	255.6	252.6
77.5°	24.0	29.8	52.8	60.5	143.2	174.9	184.4	190.2	198.8	200.7	201.7
80°	20.2	26.0	41.4	47.1	103.7	128.7	135.4	140.3	147.9	147.9	149.8
82.5°	15.4	20.2	29.8	33.6	70.1	88.3	94.2	97.0	101.8	101.8	101.8
85°	9.6	12.5	19.2	22.1	42.3	53.8	57.7	58.6	62.5	63.4	63.4
87.5°	4.8	6.7	12.5	13.5	22.1	27.9	27.9	29.8	29.8	28.8	27.9
90°	9.0	16.1	23.2	25.0	39.3	58.4	67.9	60.4	45.3	34.0	34.0
92.5°	35.7	96.5	157.3	172.5	242.5	335.8	382.4	335.1	240.7	169.8	163.0
95°	85.8	196.9	308.2	336.0	596.6	944.0	1117.7	997.4	756.7	576.2	555.8
97.5°	148.3	246.4	344.5	369.0	803.5	1382.9	1672.6	1596.6	1444.4	1330.4	1291.4
100°	196.5	285.5	374.5	396.7	878.9	1521.8	1843.2	1848.8	1860.0	1868.3	1821.9
102.5°	237.7	320.7	403.7	424.4	913.5	1565.4	1891.5	1988.3	2182.1	2327.4	2287.7
105°	307.3	377.6	447.9	465.5	939.1	1570.4	1886.1	2103.3	2537.7	2863.6	2842.2
107.5°	378.8	444.4	509.9	526.2	943.7	1500.5	1778.9	2081.9	2687.8	3142.3	3147.5
110°	427.1	486.3	545.4	560.2	936.7	1438.5	1689.5	2028.2	2705.7	3213.8	3236.0

TEST NUMBER: P938290

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-6-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	474.4	530.8	587.1	601.3	937.0	1384.5	1608.2	1954.9	2648.2	3168.2	3202.4
115°	545.9	597.9	650.0	663.0	945.5	1322.4	1510.8	1844.8	2512.7	3013.6	3061.0
117.5°	616.5	663.7	711.0	722.8	963.2	1283.6	1443.9	1745.3	2348.0	2800.1	2852.6
120°	657.6	702.1	746.6	757.7	977.4	1270.5	1417.0	1692.5	2243.2	2656.2	2707.2
122.5°	697.8	742.7	787.6	798.8	998.0	1263.7	1396.5	1644.5	2140.4	2512.4	2562.7
125°	759.4	800.3	841.3	851.5	1025.7	1258.0	1374.1	1584.8	2006.1	2322.1	2368.4
127.5°	809.5	850.7	892.1	902.4	1053.4	1254.7	1355.3	1536.2	1898.0	2169.3	2208.4
130°	836.3	880.8	925.3	936.4	1073.7	1256.8	1348.3	1509.3	1831.3	2072.8	2108.9
132.5°	864.0	908.5	953.0	964.1	1090.0	1258.0	1342.0	1486.1	1774.4	1990.6	2023.0
135°	905.1	945.5	986.1	996.3	1107.9	1256.8	1331.3	1452.0	1693.4	1874.5	1902.4
137.5°	947.1	987.2	1027.3	1037.3	1134.7	1264.5	1329.5	1431.5	1635.6	1788.7	1811.5
140°	981.9	1018.9	1055.8	1065.0	1151.1	1265.9	1323.2	1411.4	1587.7	1720.0	1741.3
142.5°	1008.7	1042.9	1077.0	1085.5	1164.8	1270.4	1323.2	1400.7	1555.5	1671.6	1690.0
145°	1049.8	1079.6	1109.4	1116.9	1182.7	1270.4	1314.3	1377.6	1504.3	1599.3	1613.2
147.5°	1090.9	1119.9	1148.9	1156.1	1208.8	1279.1	1314.3	1364.1	1463.7	1538.5	1550.1
150°	1117.7	1143.9	1170.1	1176.7	1222.5	1283.7	1314.3	1356.4	1440.5	1503.6	1513.0
152.5°	1145.4	1165.3	1185.2	1190.1	1231.5	1286.7	1314.3	1350.2	1422.1	1476.0	1483.0
155°	1186.5	1201.2	1215.9	1219.5	1251.1	1293.3	1314.3	1342.8	1400.0	1442.9	1447.6
157.5°	1216.9	1231.2	1245.5	1249.0	1270.8	1299.8	1314.3	1336.5	1381.0	1414.4	1417.6
160°	1237.5	1248.6	1259.6	1262.4	1279.7	1302.7	1314.3	1333.4	1371.5	1400.0	1401.9
162.5°	1258.0	1266.3	1274.6	1276.7	1289.2	1306.0	1314.3	1330.3	1362.5	1386.7	1388.5
165°	1280.4	1287.9	1295.4	1297.3	1302.9	1310.5	1314.3	1325.8	1348.8	1366.1	1368.0
167.5°	1300.9	1304.4	1308.1	1308.9	1313.7	1320.1	1323.2	1330.8	1345.9	1357.2	1357.9
170°	1314.3	1317.8	1321.4	1322.3	1322.6	1323.1	1323.2	1330.8	1345.9	1357.2	1357.2
172.5°	1321.4	1322.2	1323.1	1323.2	1323.2	1323.2	1323.2	1329.2	1341.1	1350.0	1349.3
175°	1331.3	1331.3	1331.3	1331.3	1328.6	1325.1	1323.2	1327.0	1334.5	1340.2	1340.2
177.5°	1331.3	1331.3	1331.3	1331.3	1329.2	1326.4	1325.0	1327.9	1333.9	1338.4	1337.7
180°	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3	1331.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	298.7	298.7
2.5°	318.9	317.0
5°	410.2	412.1
7.5°	552.4	551.4
10°	686.8	695.4
12.5°	784.8	786.7
15°	844.4	848.2
17.5°	867.4	868.4
20°	868.4	866.5
22.5°	857.8	855.9
25°	845.4	844.4
27.5°	833.8	834.8
30°	829.0	831.9
32.5°	829.0	833.8
35°	830.9	835.7
37.5°	830.0	835.7
40°	826.1	832.9
42.5°	815.6	820.3
45°	799.2	805.0
47.5°	778.0	782.0
50°	751.2	755.0
52.5°	717.6	718.5
55°	677.2	681.1
57.5°	634.0	635.0
60°	586.0	588.9
62.5°	535.1	535.1
65°	481.2	483.1
67.5°	425.5	430.3
70°	368.9	369.9
72.5°	313.1	313.1
75°	255.6	256.5
77.5°	200.7	200.7
80°	148.9	149.8
82.5°	102.8	104.7
85°	64.4	64.4
87.5°	29.8	26.9
90°	34.0	34.0
92.5°	136.0	109.0
95°	474.0	392.2
97.5°	1135.8	980.1
100°	1636.5	1451.0
102.5°	2128.9	1970.1
105°	2756.8	2671.4
107.5°	3168.1	3188.7
110°	3324.9	3413.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3339.0	3475.5
115°	3250.3	3439.8
117.5°	3062.7	3272.8
120°	2911.4	3115.5
122.5°	2764.1	2965.4
125°	2553.9	2739.3
127.5°	2364.9	2521.4
130°	2253.5	2398.0
132.5°	2152.4	2281.9
135°	2014.0	2125.5
137.5°	1902.9	1994.2
140°	1826.6	1912.0
142.5°	1763.5	1836.9
145°	1668.8	1724.3
147.5°	1596.1	1642.2
150°	1550.3	1587.7
152.5°	1511.2	1539.5
155°	1466.2	1484.9
157.5°	1430.8	1443.9
160°	1409.5	1417.0
162.5°	1395.5	1402.7
165°	1375.5	1383.0
167.5°	1361.2	1364.3
170°	1357.2	1357.2
172.5°	1346.6	1343.8
175°	1340.2	1340.2
177.5°	1334.4	1331.3
180°	1331.3	1331.3

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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	0.00	0.22	0.73	1.38	3.01	12.72	13.39	13.89	14.54	16.17
	3H	0.25	0.84	1.42	2.01	3.65	14.54	15.14	15.72	16.30	17.94
	4H	0.54	1.10	1.72	2.27	3.91	15.17	15.74	16.36	16.90	18.55
	6H	0.78	1.30	1.97	2.46	4.12	15.59	16.11	16.78	17.28	18.94
	8H	0.84	1.34	2.03	2.52	4.17	15.70	16.20	16.89	17.38	19.03
	12H	0.85	1.32	2.05	2.49	4.17	15.76	16.23	16.96	17.40	19.08
4H	2H	6.74	7.31	7.93	8.47	10.12	12.97	13.54	14.16	14.70	16.35
	3H	8.29	8.76	9.49	9.95	11.61	15.00	15.47	16.19	16.66	18.32
	4H	8.38	8.81	9.57	9.99	11.67	15.75	16.19	16.95	17.36	19.04
	6H	8.38	8.75	9.58	9.95	11.61	16.27	16.65	17.47	17.84	19.51
	8H	8.35	8.70	9.55	9.88	11.57	16.43	16.78	17.63	17.97	19.65
	12H	8.29	8.61	9.51	9.81	11.50	16.51	16.83	17.72	18.02	19.71
8H	4H	9.80	10.15	11.00	11.34	13.02	15.79	16.14	16.99	17.33	19.02
	6H	10.03	10.32	11.25	11.55	13.23	16.41	16.70	17.63	17.93	19.61
	8H	10.05	10.30	11.27	11.51	13.21	16.62	16.87	17.85	18.08	19.78
	12H	10.01	10.23	11.23	11.43	13.16	16.76	16.98	17.98	18.18	19.91
12H	4H	9.93	10.25	11.15	11.45	13.14	15.74	16.05	16.95	17.25	18.94
	6H	10.29	10.54	11.51	11.75	13.45	16.39	16.64	17.61	17.85	19.55
	8H	10.35	10.57	11.57	11.77	13.50	16.61	16.83	17.83	18.03	19.76