

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: P938252

Luminaire Tested: SQ4-FB-150U-050D-930-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938252  
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-930-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

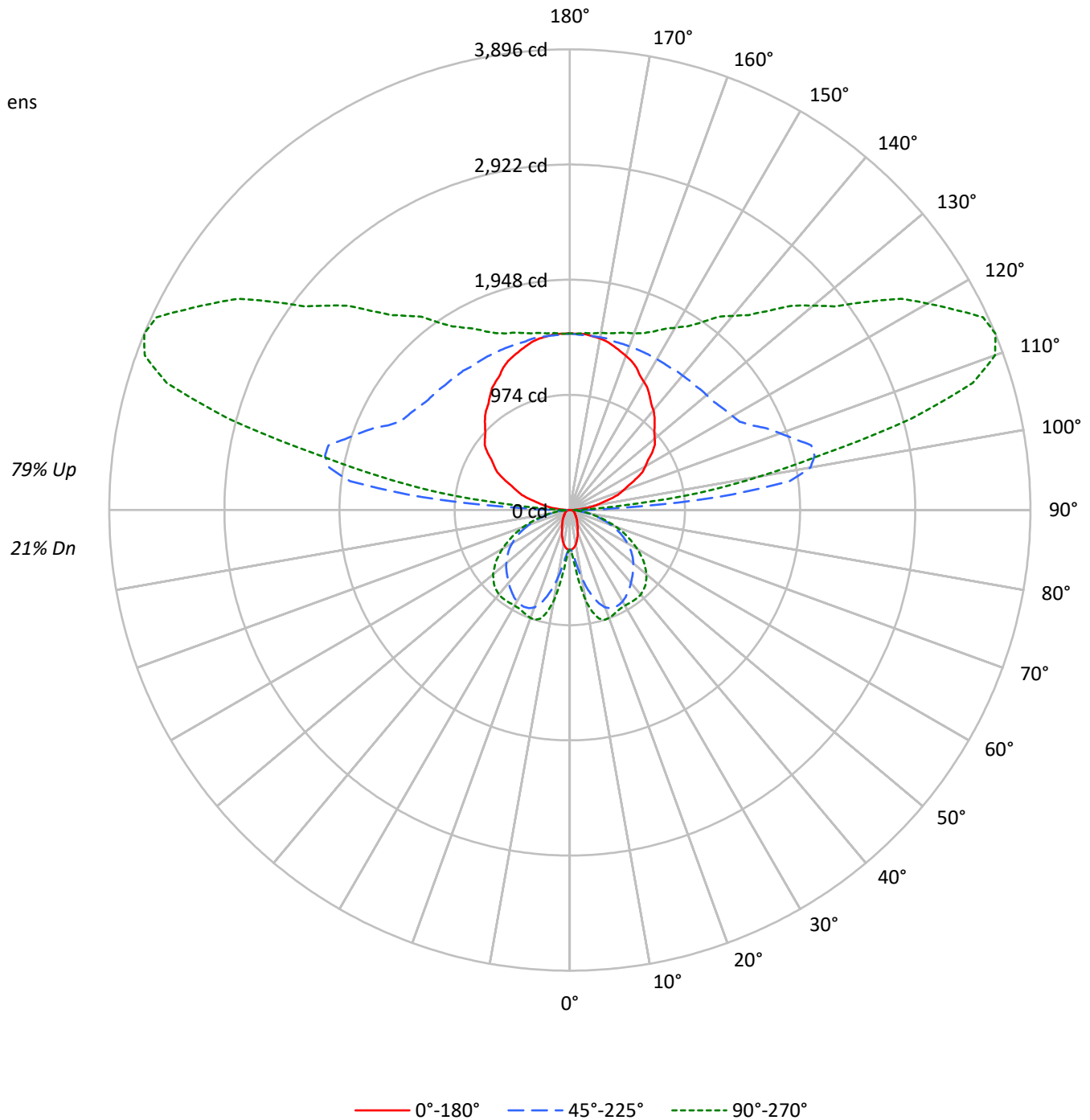
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12272.3 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 111.2  
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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

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

	0°	45°	90°
0°	1554	1554	1554
5°	1518	1796	2089
10°	1377	2619	3463
15°	1170	3421	4182
20°	953	3964	4262
25°	795	4148	4175
30°	670	4175	4168
35°	592	4105	4275
40°	517	4015	4386
45°	468	3949	4404
50°	429	3890	4331
55°	411	3803	4139
60°	421	3636	3835
65°	438	3382	3419
70°	467	2949	2889
75°	517	2405	2254
80°	564	1667	1519
85°	503	884	778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4404 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.3	0.4
10°-20°	192.0	1.6
20°-30°	335.9	2.7
30°-40°	432.4	3.5
40°-50°	483.0	3.9
50°-60°	462.6	3.8
60°-70°	366.6	3.0
70°-80°	215.6	1.8
80°-90°	65.6	0.5
90°-100°	727.5	5.9
100°-110°	1912.7	15.6
110°-120°	1983.2	16.2
120°-130°	1590.8	13.0
130°-140°	1248.2	10.2
140°-150°	958.1	7.8
150°-160°	690.0	5.6
160°-170°	422.2	3.4
170°-180°	142.6	1.2
0°-30°	571.3	4.7
0°-40°	1003.7	8.2
0°-60°	1949.2	15.9
0°-90°	2597.0	21.2
90°-120°	4623.4	37.7
90°-150°	8420.5	68.6
90°-180°	9675.0	78.8
0°-180°	12272.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	335	335	335	335	335	
5°	326	350	394	446	462	30
15°	244	451	760	922	951	68
25°	156	512	906	946	947	72
35°	106	489	853	902	937	66
45°	72	390	754	864	903	56
55°	52	248	640	743	764	47
65°	41	131	475	534	542	41
75°	30	81	261	286	288	32
85°	11	25	65	71	72	11
90°	10	28	76	38	38	9
95°	96	377	1253	646	440	107
105°	345	522	2114	3210	2995	365
115°	612	743	1694	3379	3856	604
125°	851	955	1541	2603	3071	756
135°	1015	1117	1492	2102	2383	785
145°	1177	1252	1473	1793	1933	737
155°	1330	1367	1473	1618	1665	611
165°	1435	1454	1473	1532	1551	405
175°	1492	1492	1484	1502	1502	142
180°	1492	1492	1492	1492	1492	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9	334.9
2.5°	334.9	334.9	337.1	338.2	340.3	341.4	343.6	345.8	352.2	353.2	355.4
5°	326.3	330.7	344.6	350.0	365.1	385.6	394.2	408.2	437.3	445.9	451.3
7.5°	313.4	323.1	357.6	366.2	403.9	457.7	480.4	510.5	556.8	579.4	597.8
10°	292.9	313.4	374.8	395.3	456.7	538.5	580.6	622.6	692.5	723.7	735.6
12.5°	270.4	303.7	393.1	421.1	509.4	629.0	679.7	725.9	805.6	847.6	854.1
15°	244.5	289.7	410.3	451.3	565.5	704.4	760.4	817.5	891.8	921.9	929.5
17.5°	221.9	279.0	426.6	469.6	608.5	772.2	829.3	876.7	937.0	957.5	962.9
20°	193.8	261.7	437.3	493.3	653.8	821.8	876.7	913.3	954.3	967.2	969.4
22.5°	173.4	243.4	443.7	501.9	683.9	852.0	898.2	927.4	955.3	959.7	960.7
25°	156.2	222.9	442.7	511.6	709.8	870.3	905.8	927.4	943.5	945.7	945.7
27.5°	140.0	200.3	438.4	513.8	729.2	874.5	902.6	917.7	925.2	929.5	929.5
30°	126.0	178.8	427.6	509.4	737.8	870.3	892.9	900.4	908.0	914.5	917.7
32.5°	115.2	158.4	411.5	500.8	738.8	859.5	875.7	879.9	890.7	905.8	911.2
35°	105.5	137.9	393.1	488.9	732.4	842.3	853.0	857.4	878.9	901.5	909.0
37.5°	95.9	122.8	369.5	468.6	722.7	821.8	829.3	836.9	870.3	897.2	905.8
40°	86.2	109.9	341.4	445.9	707.6	797.1	803.5	815.4	859.5	890.7	899.4
42.5°	78.6	99.1	311.2	422.2	688.3	769.0	778.7	795.9	846.6	879.9	889.6
45°	72.2	88.3	279.0	389.9	663.4	740.0	753.9	777.6	831.5	863.8	872.4
47.5°	65.7	80.8	245.6	356.5	636.5	710.9	729.2	756.1	811.0	842.3	849.8
50°	60.3	73.2	212.2	321.0	607.5	679.7	701.2	729.2	785.2	814.2	824.0
52.5°	56.0	66.8	180.9	285.4	574.1	647.3	672.1	701.2	753.9	782.0	788.4
55°	51.7	61.4	154.0	247.7	539.6	612.8	639.8	667.8	719.5	743.2	747.5
57.5°	49.5	57.1	131.4	212.2	503.0	574.1	604.3	630.1	678.5	696.8	701.2
60°	46.3	53.9	114.2	182.0	463.2	537.4	563.3	589.2	630.1	645.1	648.4
62.5°	43.1	51.7	101.3	153.0	422.2	494.4	520.2	544.0	578.4	589.2	593.5
65°	41.0	49.5	91.5	131.4	380.2	449.1	475.0	495.5	523.5	534.2	536.4
67.5°	38.8	47.4	84.0	113.1	338.2	403.9	423.3	442.7	464.2	475.0	476.0
70°	35.6	45.2	77.6	100.1	295.1	352.2	368.3	388.8	406.1	411.5	414.7
72.5°	33.4	42.0	73.2	90.5	250.9	302.7	317.7	329.6	344.6	350.0	350.0
75°	30.2	37.7	68.9	80.8	205.7	247.7	260.7	272.5	284.3	286.5	283.3
77.5°	26.9	33.4	59.3	67.9	160.5	196.0	206.8	213.3	222.9	225.1	226.2
80°	22.6	29.1	46.3	52.8	116.4	144.3	151.8	157.2	165.9	165.9	168.0
82.5°	17.3	22.6	33.4	37.7	78.6	99.1	105.5	108.8	114.2	114.2	114.2
85°	10.8	14.0	21.5	24.7	47.4	60.3	64.6	65.7	70.0	71.1	71.1
87.5°	5.4	7.5	14.0	15.1	24.7	31.2	31.2	33.4	33.4	32.3	31.2
90°	10.0	18.1	26.0	28.0	44.1	65.4	76.1	67.7	50.7	38.1	38.1
92.5°	40.1	108.2	176.3	193.4	271.8	376.4	428.7	375.7	269.8	190.3	182.8
95°	96.2	220.8	345.5	376.6	668.7	1058.3	1253.1	1118.2	848.4	646.1	623.1
97.5°	166.3	276.2	386.2	413.7	900.9	1550.4	1875.2	1789.9	1619.4	1491.5	1447.9
100°	220.3	320.1	419.8	444.8	985.4	1706.1	2066.4	2072.7	2085.2	2094.5	2042.5
102.5°	266.4	359.5	452.5	475.8	1024.1	1755.0	2120.6	2229.2	2446.4	2609.3	2564.9
105°	344.6	423.3	502.2	521.9	1052.7	1760.6	2114.5	2358.1	2845.1	3210.4	3186.5
107.5°	424.7	498.2	571.6	590.0	1058.1	1682.3	1994.3	2334.0	3013.4	3522.9	3528.7
110°	478.8	545.2	611.5	628.0	1050.1	1612.8	1894.2	2273.9	3033.4	3603.1	3628.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	531.9	595.1	658.3	674.1	1050.4	1552.1	1803.0	2191.6	2968.9	3551.9	3590.2
115°	612.0	670.3	728.6	743.3	1060.1	1482.6	1693.8	2068.2	2817.0	3378.6	3431.7
117.5°	691.1	744.1	797.1	810.4	1079.8	1439.1	1618.7	1956.6	2632.4	3139.2	3198.1
120°	737.2	787.1	837.0	849.4	1095.9	1424.4	1588.7	1897.4	2514.9	2978.0	3035.2
122.5°	782.3	832.6	882.9	895.5	1118.9	1416.7	1565.6	1843.6	2399.7	2816.7	2873.1
125°	851.4	897.3	943.1	954.6	1149.9	1410.3	1540.6	1776.7	2249.0	2603.3	2655.3
127.5°	907.6	953.8	1000.1	1011.7	1181.0	1406.7	1519.5	1722.3	2127.9	2432.0	2475.9
130°	937.6	987.4	1037.3	1049.8	1203.7	1408.9	1511.5	1692.0	2053.1	2323.9	2364.4
132.5°	968.7	1018.5	1068.4	1080.8	1222.1	1410.4	1504.5	1666.1	1989.3	2231.7	2268.0
135°	1014.7	1060.1	1105.6	1116.9	1242.1	1409.0	1492.5	1627.8	1898.5	2101.5	2132.8
137.5°	1061.8	1106.8	1151.7	1162.9	1272.1	1417.7	1490.5	1605.0	1833.7	2005.3	2030.9
140°	1100.8	1142.3	1183.6	1194.0	1290.5	1419.1	1483.5	1582.3	1780.0	1928.2	1952.2
142.5°	1130.9	1169.2	1207.5	1217.0	1305.8	1424.3	1483.5	1570.3	1743.9	1874.1	1894.7
145°	1177.0	1210.4	1243.8	1252.1	1325.9	1424.3	1473.4	1544.4	1686.5	1793.0	1808.6
147.5°	1223.0	1255.6	1288.1	1296.2	1355.3	1434.1	1473.4	1529.3	1641.0	1724.8	1737.8
150°	1253.1	1282.5	1311.9	1319.2	1370.6	1439.1	1473.4	1520.6	1615.0	1685.8	1696.3
152.5°	1284.2	1306.4	1328.7	1334.3	1380.7	1442.5	1473.4	1513.7	1594.3	1654.7	1662.6
155°	1330.2	1346.7	1363.2	1367.3	1402.7	1449.8	1473.4	1505.5	1569.6	1617.7	1622.9
157.5°	1364.3	1380.4	1396.3	1400.4	1424.7	1457.2	1473.4	1498.4	1548.3	1585.7	1589.4
160°	1387.3	1399.8	1412.2	1415.4	1434.7	1460.5	1473.4	1494.8	1537.6	1569.6	1571.7
162.5°	1410.4	1419.7	1429.1	1431.4	1445.4	1464.1	1473.4	1491.5	1527.5	1554.6	1556.6
165°	1435.4	1443.8	1452.3	1454.4	1460.7	1469.2	1473.4	1486.4	1512.2	1531.6	1533.6
167.5°	1458.4	1462.4	1466.4	1467.5	1472.8	1479.9	1483.5	1491.9	1508.8	1521.5	1522.4
170°	1473.4	1477.4	1481.5	1482.5	1482.8	1483.2	1483.5	1491.9	1508.8	1521.5	1521.5
172.5°	1481.5	1482.3	1483.2	1483.5	1483.5	1483.5	1483.5	1490.1	1503.5	1513.5	1512.7
175°	1492.5	1492.5	1492.5	1492.5	1489.5	1485.5	1483.5	1487.7	1496.1	1502.5	1502.5
177.5°	1492.5	1492.5	1492.5	1492.5	1490.1	1487.0	1485.5	1488.8	1495.5	1500.5	1499.6
180°	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5	1492.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	334.9	334.9
2.5°	357.6	355.4
5°	459.9	462.0
7.5°	619.3	618.2
10°	770.1	779.8
12.5°	879.9	882.1
15°	946.7	951.1
17.5°	972.6	973.6
20°	973.6	971.5
22.5°	961.8	959.7
25°	947.8	946.7
27.5°	934.9	936.0
30°	929.5	932.8
32.5°	929.5	934.9
35°	931.6	937.0
37.5°	930.6	937.0
40°	926.3	933.8
42.5°	914.5	919.8
45°	896.1	902.6
47.5°	872.4	876.7
50°	842.3	846.6
52.5°	804.5	805.6
55°	759.3	763.7
57.5°	710.9	711.9
60°	657.0	660.2
62.5°	599.9	599.9
65°	539.6	541.8
67.5°	477.1	482.5
70°	413.6	414.7
72.5°	351.2	351.2
75°	286.5	287.6
77.5°	225.1	225.1
80°	166.9	168.0
82.5°	115.2	117.4
85°	72.2	72.2
87.5°	33.4	30.2
90°	38.1	38.1
92.5°	152.5	122.2
95°	531.4	439.7
97.5°	1273.3	1098.8
100°	1834.6	1626.7
102.5°	2386.8	2208.7
105°	3090.7	2995.0
107.5°	3551.8	3575.0
110°	3727.7	3827.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3743.3	3896.5
115°	3644.1	3856.4
117.5°	3433.6	3669.1
120°	3264.0	3492.8
122.5°	3098.9	3324.6
125°	2863.3	3071.2
127.5°	2651.3	2826.7
130°	2526.5	2688.5
132.5°	2413.1	2558.3
135°	2257.9	2383.0
137.5°	2133.3	2235.7
140°	2047.9	2143.6
142.5°	1977.1	2059.5
145°	1870.9	1933.2
147.5°	1789.4	1841.0
150°	1738.2	1780.0
152.5°	1694.2	1725.9
155°	1643.9	1664.8
157.5°	1604.0	1618.7
160°	1580.2	1588.7
162.5°	1564.6	1572.6
165°	1542.2	1550.6
167.5°	1526.0	1529.6
170°	1521.5	1521.5
172.5°	1509.6	1506.5
175°	1502.5	1502.5
177.5°	1496.0	1492.5
180°	1492.5	1492.5



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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	0.00	0.13	0.78	2.41	12.14	12.81	13.31	13.96	15.59
	3H	0.00	0.25	0.83	1.41	3.05	13.96	14.56	15.14	15.72	17.37
	4H	0.00	0.51	1.12	1.67	3.32	14.60	15.17	15.78	16.33	17.98
	6H	0.18	0.70	1.37	1.87	3.53	15.02	15.54	16.21	16.71	18.36
	8H	0.24	0.74	1.43	1.92	3.57	15.13	15.63	16.33	16.81	18.46
	12H	0.25	0.72	1.45	1.90	3.57	15.20	15.67	16.39	16.84	18.51
4H	2H	6.15	6.72	7.34	7.88	9.53	12.39	12.96	13.58	14.12	15.77
	3H	7.70	8.17	8.90	9.36	11.02	14.42	14.89	15.61	16.08	17.74
	4H	7.79	8.22	8.98	9.40	11.08	15.18	15.61	16.37	16.79	18.46
	6H	7.79	8.16	8.99	9.36	11.02	15.70	16.08	16.90	17.27	18.94
	8H	7.76	8.11	8.96	9.30	10.98	15.86	16.21	17.06	17.40	19.08
	12H	7.70	8.02	8.92	9.22	10.91	15.94	16.26	17.16	17.46	19.15
8H	4H	9.21	9.56	10.41	10.75	12.44	15.22	15.57	16.42	16.76	18.44
	6H	9.45	9.74	10.67	10.97	12.65	15.84	16.13	17.06	17.36	19.04
	8H	9.46	9.71	10.68	10.92	12.62	16.05	16.31	17.28	17.51	19.21
	12H	9.42	9.64	10.65	10.85	12.58	16.19	16.41	17.42	17.62	19.35
12H	4H	9.35	9.67	10.56	10.86	12.55	15.16	15.48	16.38	16.68	18.37
	6H	9.70	9.95	10.93	11.16	12.86	15.82	16.07	17.04	17.28	18.98
	8H	9.76	9.98	10.99	11.19	12.92	16.04	16.26	17.26	17.46	19.20