

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: P938224

Luminaire Tested: SQ4-FB-150U-050D-927-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

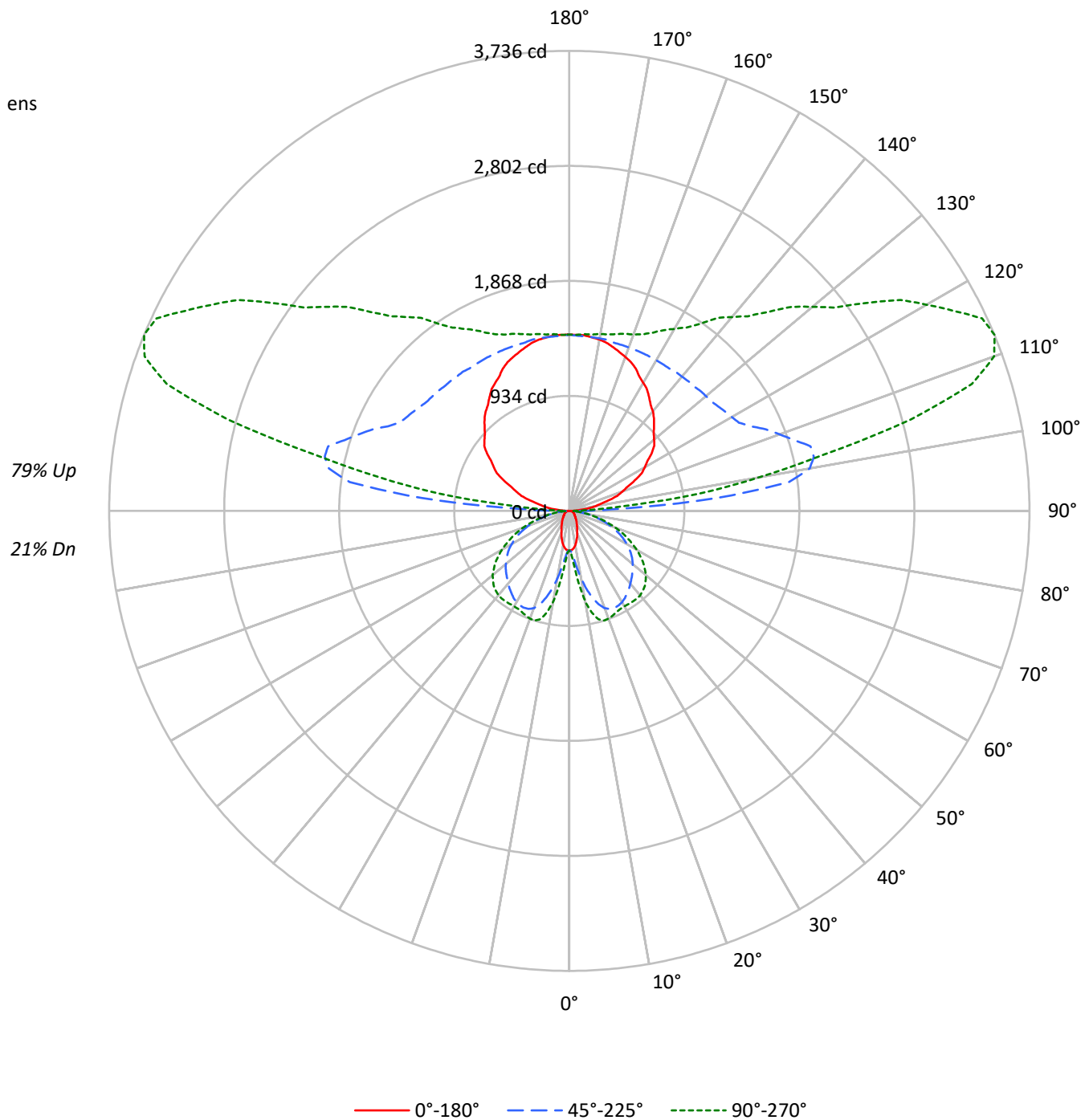
Test Method: LM-79-2019  
Report Number: P938224  
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-927-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11767.9 lumens  
Efficiency: N/A  
Efficacy: 105.8 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°	1490	1490	1490
5°	1456	1722	2003
10°	1320	2511	3321
15°	1123	3280	4010
20°	914	3801	4086
25°	762	3978	4004
30°	643	4003	3996
35°	568	3937	4099
40°	495	3850	4206
45°	448	3787	4223
50°	411	3730	4153
55°	394	3647	3969
60°	403	3487	3678
65°	420	3243	3279
70°	447	2828	2770
75°	497	2306	2161
80°	541	1599	1456
85°	480	849	745

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4223 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.5	0.4
10°-20°	184.1	1.6
20°-30°	322.1	2.7
30°-40°	414.6	3.5
40°-50°	463.1	3.9
50°-60°	443.6	3.8
60°-70°	351.5	3.0
70°-80°	206.7	1.8
80°-90°	62.9	0.5
90°-100°	697.6	5.9
100°-110°	1834.1	15.6
110°-120°	1901.7	16.2
120°-130°	1525.4	13.0
130°-140°	1196.9	10.2
140°-150°	918.7	7.8
150°-160°	661.6	5.6
160°-170°	404.8	3.4
170°-180°	136.8	1.2
0°-30°	547.8	4.7
0°-40°	962.4	8.2
0°-60°	1869.1	15.9
0°-90°	2490.3	21.2
90°-120°	4433.5	37.7
90°-150°	8074.5	68.6
90°-180°	9278.0	78.8
0°-180°	11767.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	321	321	321	321	321	
5°	313	336	378	428	443	29
15°	234	433	729	884	912	65
25°	150	491	869	907	908	69
35°	101	469	818	864	898	63
45°	69	374	723	828	866	54
55°	50	238	614	713	732	45
65°	39	126	456	512	520	39
75°	29	78	250	275	276	30
85°	10	24	62	68	69	11
90°	10	27	73	36	36	9
95°	92	361	1202	620	422	102
105°	330	500	2028	3078	2872	350
115°	587	713	1624	3240	3698	580
125°	816	915	1477	2496	2945	725
135°	973	1071	1431	2015	2285	753
145°	1129	1201	1413	1719	1854	707
155°	1276	1311	1413	1551	1596	586
165°	1376	1395	1413	1469	1487	388
175°	1431	1431	1422	1441	1441	136
180°	1431	1431	1431	1431	1431	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2
2.5°	321.2	321.2	323.2	324.3	326.3	327.4	329.5	331.6	337.7	338.7	340.8
5°	312.9	317.1	330.5	335.6	350.1	369.8	378.0	391.4	419.3	427.6	432.7
7.5°	300.5	309.8	342.9	351.1	387.3	438.9	460.6	489.6	533.9	555.6	573.2
10°	280.9	300.5	359.4	379.1	437.9	516.4	556.7	597.0	664.0	694.0	705.4
12.5°	259.3	291.2	377.0	403.8	488.5	603.1	651.7	696.1	772.5	812.8	819.0
15°	234.5	277.8	393.5	432.7	542.2	675.4	729.2	783.9	855.2	884.0	891.3
17.5°	212.8	267.5	409.0	450.3	583.5	740.5	795.3	840.7	898.5	918.1	923.3
20°	185.9	250.9	419.3	473.0	626.9	788.0	840.7	875.8	915.1	927.5	929.5
22.5°	166.2	233.4	425.5	481.2	655.8	817.0	861.3	889.3	916.1	920.2	921.2
25°	149.8	213.8	424.5	490.6	680.6	834.5	868.6	889.3	904.8	906.8	906.8
27.5°	134.3	192.1	420.3	492.6	699.2	838.6	865.5	880.0	887.2	891.3	891.3
30°	120.8	171.5	410.0	488.5	707.5	834.5	856.2	863.4	870.6	876.9	880.0
32.5°	110.5	151.8	394.5	480.2	708.5	824.1	839.7	843.8	854.1	868.6	873.7
35°	101.2	132.2	377.0	468.9	702.3	807.7	818.0	822.1	842.8	864.5	871.6
37.5°	91.9	117.7	354.3	449.3	693.0	788.0	795.3	802.5	834.5	860.3	868.6
40°	82.6	105.3	327.4	427.6	678.5	764.3	770.5	781.9	824.1	854.1	862.4
42.5°	75.4	95.0	298.5	404.9	660.0	737.4	746.7	763.2	811.8	843.8	853.1
45°	69.2	84.7	267.5	373.8	636.2	709.6	723.0	745.7	797.3	828.3	836.5
47.5°	63.0	77.5	235.5	341.9	610.4	681.7	699.2	725.0	777.7	807.7	814.9
50°	57.8	70.2	203.4	307.8	582.5	651.7	672.4	699.2	752.9	780.8	790.1
52.5°	53.7	64.1	173.5	273.7	550.5	620.7	644.5	672.4	723.0	749.8	756.0
55°	49.6	58.9	147.7	237.5	517.4	587.7	613.5	640.3	689.9	712.6	716.8
57.5°	47.5	54.7	126.0	203.4	482.3	550.5	579.4	604.2	650.6	668.2	672.4
60°	44.4	51.7	109.5	174.6	444.1	515.4	540.2	564.9	604.2	618.6	621.8
62.5°	41.3	49.6	97.1	146.7	404.9	474.1	498.8	521.6	554.6	564.9	569.1
65°	39.3	47.5	87.8	126.0	364.6	430.7	455.5	475.1	502.0	512.3	514.4
67.5°	37.2	45.4	80.5	108.4	324.3	387.3	405.9	424.5	445.1	455.5	456.5
70°	34.1	43.4	74.4	96.0	283.0	337.7	353.2	372.8	389.4	394.5	397.6
72.5°	32.0	40.3	70.2	86.8	240.6	290.2	304.7	316.0	330.5	335.6	335.6
75°	29.0	36.1	66.1	77.5	197.3	237.5	249.9	261.3	272.7	274.7	271.7
77.5°	25.8	32.0	56.8	65.1	153.9	188.0	198.3	204.5	213.8	215.8	216.9
80°	21.7	27.9	44.4	50.6	111.6	138.4	145.6	150.8	159.1	159.1	161.1
82.5°	16.6	21.7	32.0	36.1	75.4	95.0	101.2	104.3	109.5	109.5	109.5
85°	10.3	13.4	20.6	23.7	45.4	57.8	62.0	63.0	67.1	68.1	68.1
87.5°	5.2	7.2	13.4	14.5	23.7	30.0	30.0	32.0	32.0	31.0	30.0
90°	9.6	17.3	24.9	26.9	42.3	62.8	73.0	64.9	48.7	36.5	36.5
92.5°	38.4	103.7	169.1	185.4	260.6	361.0	411.1	360.3	258.7	182.5	175.3
95°	92.2	211.8	331.3	361.1	641.3	1014.8	1201.6	1072.2	813.6	619.5	597.5
97.5°	159.5	264.9	370.4	396.7	863.9	1486.7	1798.1	1716.3	1552.9	1430.2	1388.4
100°	211.3	306.9	402.6	426.5	944.9	1635.9	1981.5	1987.5	1999.5	2008.4	1958.6
102.5°	255.5	344.7	433.9	456.2	982.0	1682.9	2033.4	2137.6	2345.9	2502.1	2459.5
105°	330.4	405.9	481.6	500.4	1009.5	1688.2	2027.6	2261.2	2728.2	3078.5	3055.5
107.5°	407.3	477.7	548.1	565.7	1014.6	1613.2	1912.4	2238.1	2889.6	3378.1	3383.7
110°	459.2	522.8	586.4	602.2	1006.9	1546.5	1816.4	2180.5	2908.8	3455.0	3478.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	510.0	570.6	631.2	646.4	1007.2	1488.3	1728.9	2101.6	2846.9	3405.9	3442.7
115°	586.9	642.8	698.7	712.7	1016.6	1421.7	1624.2	1983.2	2701.2	3239.8	3290.7
117.5°	662.7	713.6	764.4	777.1	1035.4	1379.9	1552.2	1876.2	2524.2	3010.2	3066.7
120°	706.9	754.8	802.6	814.5	1050.8	1365.8	1523.4	1819.4	2411.6	2855.6	2910.4
122.5°	750.1	798.4	846.6	858.7	1072.9	1358.5	1501.3	1767.8	2301.1	2700.9	2755.1
125°	816.4	860.4	904.4	915.4	1102.6	1352.4	1477.2	1703.7	2156.6	2496.3	2546.2
127.5°	870.3	914.6	959.0	970.1	1132.4	1348.9	1457.1	1651.5	2040.4	2332.1	2374.1
130°	899.1	946.9	994.7	1006.6	1154.2	1351.0	1449.4	1622.5	1968.7	2228.4	2267.3
132.5°	928.9	976.7	1024.5	1036.4	1171.9	1352.4	1442.7	1597.6	1907.5	2140.0	2174.8
135°	973.0	1016.6	1060.1	1071.0	1191.0	1351.1	1431.1	1560.9	1820.5	2015.2	2045.1
137.5°	1018.2	1061.3	1104.3	1115.1	1219.8	1359.4	1429.3	1539.0	1758.4	1922.9	1947.5
140°	1055.6	1095.3	1135.0	1144.9	1237.5	1360.8	1422.5	1517.3	1706.9	1849.0	1871.9
142.5°	1084.4	1121.1	1157.8	1167.0	1252.2	1365.7	1422.5	1505.7	1672.2	1797.1	1816.8
145°	1128.6	1160.6	1192.7	1200.7	1271.4	1365.7	1412.9	1480.9	1617.2	1719.3	1734.3
147.5°	1172.8	1204.0	1235.2	1242.9	1299.6	1375.1	1412.9	1466.5	1573.6	1654.0	1666.4
150°	1201.6	1229.8	1257.9	1265.0	1314.2	1380.0	1412.9	1458.1	1548.6	1616.5	1626.5
152.5°	1231.4	1252.7	1274.1	1279.4	1323.9	1383.2	1412.9	1451.5	1528.8	1586.7	1594.3
155°	1275.6	1291.4	1307.2	1311.1	1345.0	1390.2	1412.9	1443.6	1505.1	1551.2	1556.2
157.5°	1308.2	1323.6	1339.0	1342.8	1366.1	1397.3	1412.9	1436.8	1484.6	1520.5	1524.1
160°	1330.3	1342.3	1354.2	1357.2	1375.8	1400.5	1412.9	1433.4	1474.4	1505.1	1507.1
162.5°	1352.4	1361.4	1370.4	1372.6	1386.0	1403.9	1412.9	1430.2	1464.8	1490.7	1492.6
165°	1376.4	1384.5	1392.6	1394.6	1400.7	1408.8	1412.9	1425.3	1450.1	1468.6	1470.6
167.5°	1398.5	1402.3	1406.2	1407.2	1412.3	1419.1	1422.5	1430.6	1446.8	1459.0	1459.8
170°	1412.9	1416.7	1420.6	1421.6	1421.9	1422.3	1422.5	1430.6	1446.8	1459.0	1459.0
172.5°	1420.6	1421.4	1422.3	1422.5	1422.5	1422.5	1422.5	1428.9	1441.7	1451.3	1450.5
175°	1431.1	1431.1	1431.1	1431.1	1428.3	1424.4	1422.5	1426.6	1434.7	1440.7	1440.7
177.5°	1431.1	1431.1	1431.1	1431.1	1428.9	1425.9	1424.4	1427.7	1434.0	1438.8	1438.0
180°	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	321.2	321.2
2.5°	342.9	340.8
5°	441.0	443.1
7.5°	593.8	592.8
10°	738.4	747.7
12.5°	843.8	845.8
15°	907.8	912.0
17.5°	932.6	933.6
20°	933.6	931.5
22.5°	922.3	920.2
25°	908.8	907.8
27.5°	896.4	897.5
30°	891.3	894.4
32.5°	891.3	896.4
35°	893.4	898.5
37.5°	892.4	898.5
40°	888.2	895.4
42.5°	876.9	882.0
45°	859.3	865.5
47.5°	836.5	840.7
50°	807.7	811.8
52.5°	771.5	772.5
55°	728.1	732.3
57.5°	681.7	682.7
60°	630.0	633.1
62.5°	575.3	575.3
65°	517.4	519.5
67.5°	457.5	462.7
70°	396.6	397.6
72.5°	336.7	336.7
75°	274.7	275.7
77.5°	215.8	215.8
80°	160.1	161.1
82.5°	110.5	112.6
85°	69.2	69.2
87.5°	32.0	29.0
90°	36.5	36.5
92.5°	146.2	117.2
95°	509.6	421.7
97.5°	1221.0	1053.7
100°	1759.2	1559.9
102.5°	2288.7	2118.0
105°	2963.7	2871.9
107.5°	3405.9	3428.0
110°	3574.5	3670.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3589.5	3736.3
115°	3494.3	3697.9
117.5°	3292.5	3518.4
120°	3129.9	3349.3
122.5°	2971.5	3188.0
125°	2745.6	2944.9
127.5°	2542.4	2710.6
130°	2422.7	2578.0
132.5°	2313.9	2453.1
135°	2165.1	2285.1
137.5°	2045.7	2143.8
140°	1963.7	2055.5
142.5°	1895.8	1974.8
145°	1794.0	1853.8
147.5°	1715.9	1765.4
150°	1666.7	1706.9
152.5°	1624.6	1655.0
155°	1576.3	1596.4
157.5°	1538.1	1552.2
160°	1515.3	1523.4
162.5°	1500.3	1508.0
165°	1478.8	1486.9
167.5°	1463.3	1466.7
170°	1459.0	1459.0
172.5°	1447.6	1444.6
175°	1440.7	1440.7
177.5°	1434.5	1431.1
180°	1431.1	1431.1



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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	0.00	0.63	2.26	12.00	12.66	13.16	13.81	15.44
	3H	0.00	0.10	0.68	1.26	2.91	13.82	14.41	14.99	15.58	17.22
	4H	0.00	0.36	0.98	1.52	3.17	14.45	15.02	15.64	16.18	17.83
	6H	0.03	0.56	1.22	1.72	3.38	14.87	15.40	16.06	16.56	18.22
	8H	0.10	0.59	1.29	1.77	3.42	14.99	15.49	16.18	16.66	18.31
	12H	0.11	0.58	1.30	1.75	3.42	15.05	15.52	16.25	16.69	18.37
4H	2H	6.01	6.57	7.20	7.74	9.38	12.24	12.81	13.43	13.97	15.62
	3H	7.56	8.03	8.75	9.22	10.88	14.27	14.74	15.47	15.93	17.59
	4H	7.64	8.08	8.84	9.25	10.93	15.03	15.47	16.22	16.64	18.32
	6H	7.64	8.01	8.84	9.21	10.88	15.56	15.93	16.76	17.13	18.79
	8H	7.61	7.96	8.81	9.15	10.83	15.71	16.06	16.91	17.25	18.94
	12H	7.56	7.88	8.77	9.07	10.76	15.80	16.11	17.01	17.31	19.00
8H	4H	9.07	9.42	10.27	10.61	12.29	15.07	15.42	16.27	16.61	18.29
	6H	9.30	9.59	10.52	10.82	12.50	15.69	15.98	16.91	17.21	18.89
	8H	9.32	9.57	10.54	10.77	12.48	15.91	16.16	17.13	17.37	19.07
	12H	9.28	9.50	10.50	10.70	12.43	16.04	16.26	17.27	17.47	19.20
12H	4H	9.20	9.52	10.42	10.72	12.41	15.01	15.33	16.23	16.53	18.22
	6H	9.56	9.81	10.78	11.02	12.72	15.67	15.92	16.89	17.13	18.83
	8H	9.62	9.84	10.84	11.04	12.77	15.89	16.11	17.12	17.32	19.05