

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: P938215

Luminaire Tested: SQ4-FB-150U-050D-835-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938215  
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-835-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

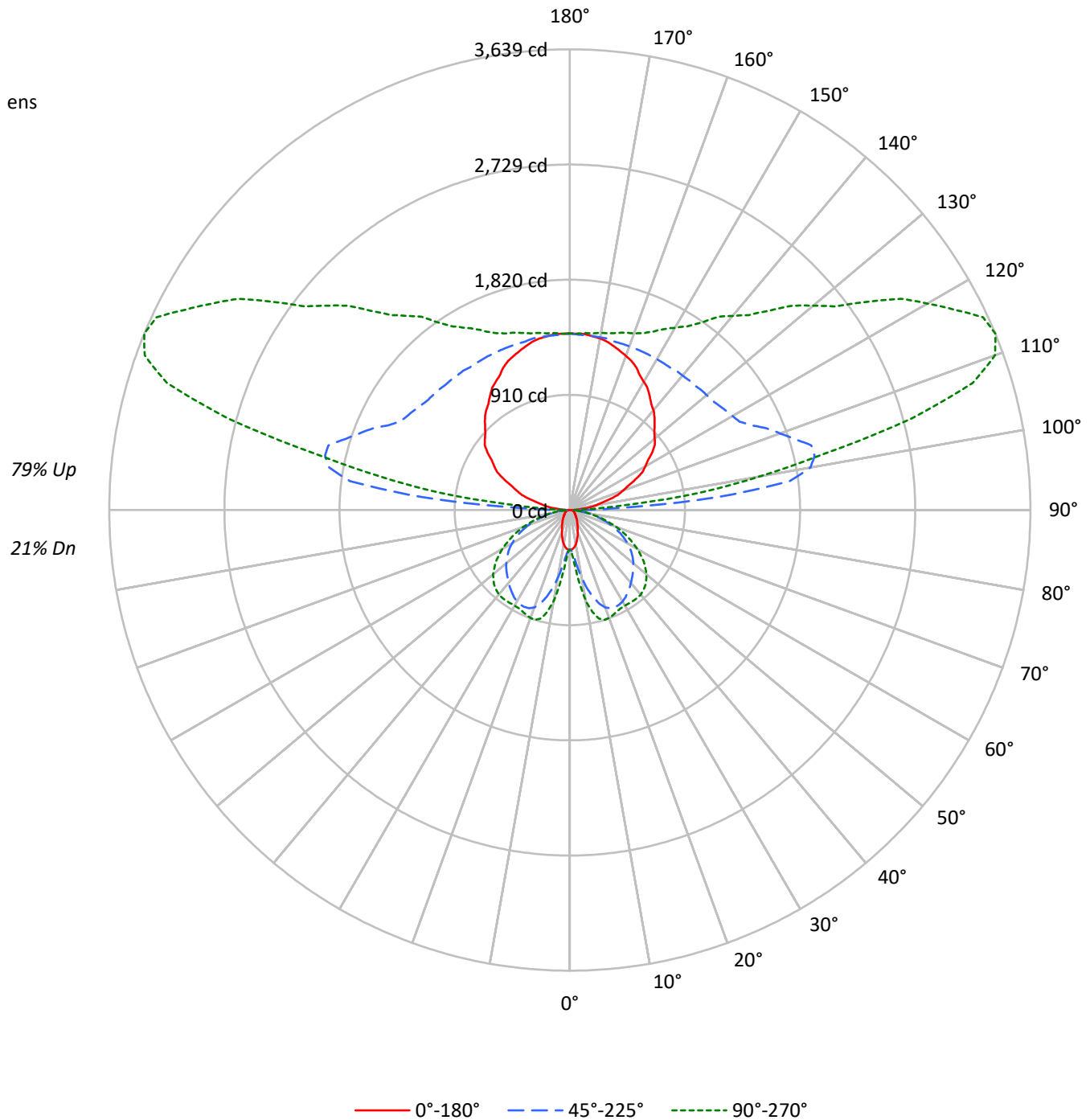
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11462.0 lumens  
Efficiency: N/A  
Efficacy: 137.4 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 (A<sub>in</sub>): 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°	1935	1935	1935
5°	1890	2236	2601
10°	1714	3259	4312
15°	1456	4256	5207
20°	1185	4931	5307
25°	988	5159	5199
30°	833	5191	5189
35°	736	5103	5323
40°	641	4990	5462
45°	580	4906	5483
50°	531	4830	5393
55°	509	4721	5154
60°	521	4512	4776
65°	540	4194	4257
70°	574	3655	3597
75°	635	2977	2807
80°	687	2062	1891
85°	602	1093	968

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5483 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.5	0.4
10°-20°	179.3	1.6
20°-30°	313.7	2.7
30°-40°	403.8	3.5
40°-50°	451.0	3.9
50°-60°	432.0	3.8
60°-70°	342.4	3.0
70°-80°	201.3	1.8
80°-90°	61.3	0.5
90°-100°	679.5	5.9
100°-110°	1786.4	15.6
110°-120°	1852.3	16.2
120°-130°	1485.8	13.0
130°-140°	1165.8	10.2
140°-150°	894.8	7.8
150°-160°	644.4	5.6
160°-170°	394.3	3.4
170°-180°	133.2	1.2
0°-30°	533.5	4.7
0°-40°	937.3	8.2
0°-60°	1820.4	15.9
0°-90°	2425.3	21.2
90°-120°	4318.3	37.7
90°-150°	7864.8	68.6
90°-180°	9037.0	78.8
0°-180°	11462.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	313	313	313	313	313	
5°	305	327	368	416	432	28
15°	228	422	710	861	888	64
25°	146	478	846	883	884	67
35°	99	457	797	842	875	62
45°	67	364	704	807	843	52
55°	48	231	598	694	713	44
65°	38	123	444	499	506	38
75°	28	75	243	268	269	29
85°	10	23	60	66	67	11
90°	9	26	71	36	36	8
95°	90	352	1170	603	411	100
105°	322	487	1975	2998	2797	341
115°	572	694	1582	3156	3602	565
125°	795	892	1439	2432	2868	706
135°	948	1043	1394	1963	2226	733
145°	1099	1170	1376	1675	1806	689
155°	1242	1277	1376	1511	1555	571
165°	1341	1358	1376	1430	1448	378
175°	1394	1394	1386	1403	1403	132
180°	1394	1394	1394	1394	1394	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8
2.5°	312.8	312.8	314.8	315.8	317.9	318.9	320.9	322.9	328.9	329.9	331.9
5°	304.8	308.8	321.9	326.9	341.0	360.1	368.1	381.2	408.4	416.4	421.5
7.5°	292.7	301.8	333.9	342.0	377.2	427.5	448.6	476.8	520.0	541.2	558.3
10°	273.6	292.7	350.0	369.2	426.5	502.9	542.2	581.4	646.8	675.9	687.0
12.5°	252.5	283.7	367.1	393.3	475.8	587.4	634.7	678.0	752.4	791.6	797.6
15°	228.3	270.6	383.2	421.5	528.1	657.8	710.1	763.5	832.9	861.0	868.1
17.5°	207.2	260.5	398.3	438.6	568.3	721.2	774.5	818.8	875.1	894.2	899.2
20°	181.1	244.4	408.4	460.7	610.6	767.5	818.8	853.0	891.2	903.3	905.3
22.5°	161.9	227.3	414.4	468.7	638.7	795.6	838.9	866.0	892.2	896.2	897.2
25°	145.9	208.2	413.4	477.8	662.9	812.7	845.9	866.0	881.1	883.1	883.1
27.5°	130.8	187.1	409.4	479.8	681.0	816.8	842.9	857.0	864.0	868.1	868.1
30°	117.7	167.0	399.3	475.8	689.0	812.7	833.9	840.9	847.9	854.0	857.0
32.5°	107.6	147.9	384.2	467.7	690.0	802.7	817.8	821.8	831.8	845.9	851.0
35°	98.6	128.8	367.1	456.7	684.0	786.6	796.6	800.7	820.8	841.9	848.9
37.5°	89.5	114.7	345.0	437.6	674.9	767.5	774.5	781.6	812.7	837.9	845.9
40°	80.5	102.6	318.9	416.4	660.9	744.3	750.4	761.4	802.7	831.8	839.9
42.5°	73.4	92.5	290.7	394.3	642.7	718.2	727.2	743.3	790.6	821.8	830.8
45°	67.4	82.5	260.5	364.1	619.6	691.0	704.1	726.2	776.5	806.7	814.7
47.5°	61.4	75.4	229.3	332.9	594.5	663.9	681.0	706.1	757.4	786.6	793.6
50°	56.3	68.4	198.2	299.7	567.3	634.7	654.8	681.0	733.3	760.4	769.5
52.5°	52.3	62.4	169.0	266.6	536.1	604.5	627.7	654.8	704.1	730.3	736.3
55°	48.3	57.3	143.8	231.3	503.9	572.3	597.5	623.6	671.9	694.0	698.1
57.5°	46.3	53.3	122.7	198.2	469.7	536.1	564.3	588.4	633.7	650.8	654.8
60°	43.3	50.3	106.6	170.0	432.5	501.9	526.1	550.2	588.4	602.5	605.5
62.5°	40.2	48.3	94.6	142.8	394.3	461.7	485.8	508.0	540.1	550.2	554.2
65°	38.2	46.3	85.5	122.7	355.1	419.4	443.6	462.7	488.8	498.9	500.9
67.5°	36.2	44.3	78.5	105.6	315.8	377.2	395.3	413.4	433.5	443.6	444.6
70°	33.2	42.2	72.4	93.5	275.6	328.9	344.0	363.1	379.2	384.2	387.3
72.5°	31.2	39.2	68.4	84.5	234.4	282.6	296.7	307.8	321.9	326.9	326.9
75°	28.2	35.2	64.4	75.4	192.1	231.3	243.4	254.5	265.5	267.6	264.5
77.5°	25.1	31.2	55.3	63.4	149.9	183.1	193.1	199.2	208.2	210.2	211.2
80°	21.1	27.2	43.3	49.3	108.6	134.8	141.8	146.9	154.9	154.9	156.9
82.5°	16.1	21.1	31.2	35.2	73.4	92.5	98.6	101.6	106.6	106.6	106.6
85°	10.1	13.1	20.1	23.1	44.3	56.3	60.4	61.4	65.4	66.4	66.4
87.5°	5.0	7.0	13.1	14.1	23.1	29.2	29.2	31.2	31.2	30.2	29.2
90°	9.4	16.9	24.3	26.2	41.2	61.1	71.1	63.2	47.4	35.6	35.6
92.5°	37.4	101.0	164.7	180.6	253.9	351.6	400.4	350.9	252.0	177.8	170.7
95°	89.8	206.2	322.7	351.8	624.7	988.5	1170.4	1044.4	792.4	603.4	582.0
97.5°	155.3	258.0	360.7	386.4	841.4	1448.1	1751.4	1671.8	1512.5	1393.1	1352.3
100°	205.8	299.0	392.1	415.4	920.3	1593.5	1930.1	1935.9	1947.6	1956.3	1907.8
102.5°	248.9	335.8	422.7	444.4	956.5	1639.2	1980.6	2082.0	2284.9	2437.1	2395.5
105°	321.8	395.4	469.0	487.4	983.3	1644.4	1975.0	2202.4	2657.3	2998.5	2976.1
107.5°	396.7	465.3	533.9	551.0	988.2	1571.2	1862.7	2180.0	2814.5	3290.4	3295.8
110°	447.2	509.2	571.1	586.6	980.8	1506.3	1769.1	2123.8	2833.2	3365.2	3388.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	496.8	555.8	614.8	629.6	981.1	1449.7	1684.0	2047.0	2773.0	3317.5	3353.3
115°	571.6	626.1	680.6	694.2	990.1	1384.7	1582.0	1931.7	2631.1	3155.6	3205.2
117.5°	645.5	695.0	744.5	756.9	1008.6	1344.1	1511.9	1827.5	2458.6	2932.0	2987.0
120°	688.6	735.2	781.8	793.4	1023.5	1330.4	1483.8	1772.2	2348.9	2781.4	2834.8
122.5°	730.7	777.7	824.7	836.4	1045.0	1323.2	1462.3	1722.0	2241.3	2630.8	2683.5
125°	795.2	838.0	880.9	891.6	1074.0	1317.3	1438.9	1659.5	2100.6	2431.5	2480.0
127.5°	847.6	890.8	934.1	944.9	1103.0	1313.8	1419.2	1608.6	1987.4	2271.5	2312.5
130°	875.7	922.3	968.9	980.5	1124.3	1316.0	1411.8	1580.4	1917.6	2170.5	2208.3
132.5°	904.7	951.3	997.9	1009.5	1141.4	1317.3	1405.2	1556.1	1858.0	2084.4	2118.3
135°	947.7	990.1	1032.6	1043.2	1160.1	1316.0	1394.0	1520.4	1773.2	1962.8	1992.0
137.5°	991.7	1033.7	1075.7	1086.2	1188.2	1324.1	1392.1	1499.0	1712.7	1873.0	1896.9
140°	1028.2	1066.9	1105.5	1115.2	1205.3	1325.5	1385.6	1477.9	1662.5	1801.0	1823.3
142.5°	1056.2	1092.0	1127.8	1136.7	1219.7	1330.3	1385.6	1466.7	1628.8	1750.4	1769.6
145°	1099.3	1130.5	1161.7	1169.5	1238.4	1330.3	1376.2	1442.5	1575.2	1674.7	1689.2
147.5°	1142.3	1172.7	1203.0	1210.6	1265.8	1339.4	1376.2	1428.4	1532.7	1611.0	1623.1
150°	1170.4	1197.8	1225.2	1232.1	1280.1	1344.2	1376.2	1420.3	1508.4	1574.5	1584.3
152.5°	1199.4	1220.2	1241.0	1246.2	1289.5	1347.3	1376.2	1413.8	1489.1	1545.5	1552.9
155°	1242.4	1257.8	1273.2	1277.0	1310.1	1354.2	1376.2	1406.1	1466.0	1510.9	1515.8
157.5°	1274.2	1289.2	1304.2	1307.9	1330.7	1361.0	1376.2	1399.5	1446.1	1481.0	1484.4
160°	1295.8	1307.4	1319.0	1321.9	1340.0	1364.1	1376.2	1396.2	1436.1	1466.0	1468.0
162.5°	1317.3	1326.0	1334.7	1336.9	1350.0	1367.5	1376.2	1393.0	1426.7	1452.0	1453.9
165°	1340.7	1348.6	1356.4	1358.4	1364.3	1372.2	1376.2	1388.3	1412.4	1430.5	1432.5
167.5°	1362.2	1365.9	1369.7	1370.6	1375.6	1382.3	1385.6	1393.5	1409.3	1421.1	1421.9
170°	1376.2	1379.9	1383.7	1384.6	1384.9	1385.4	1385.6	1393.5	1409.3	1421.1	1421.1
172.5°	1383.7	1384.5	1385.4	1385.6	1385.6	1385.6	1385.6	1391.8	1404.3	1413.6	1412.9
175°	1394.0	1394.0	1394.0	1394.0	1391.2	1387.5	1385.6	1389.5	1397.4	1403.3	1403.3
177.5°	1394.0	1394.0	1394.0	1394.0	1391.8	1388.9	1387.4	1390.5	1396.8	1401.5	1400.7
180°	1394.0	1394.0	1394.0	1394.0	1394.0	1394.0	1394.0	1394.0	1394.0	1394.0	1394.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	312.8	312.8
2.5°	333.9	331.9
5°	429.5	431.5
7.5°	578.4	577.4
10°	719.2	728.2
12.5°	821.8	823.8
15°	884.2	888.2
17.5°	908.3	909.3
20°	909.3	907.3
22.5°	898.2	896.2
25°	885.2	884.2
27.5°	873.1	874.1
30°	868.1	871.1
32.5°	868.1	873.1
35°	870.1	875.1
37.5°	869.1	875.1
40°	865.0	872.1
42.5°	854.0	859.0
45°	836.9	842.9
47.5°	814.7	818.8
50°	786.6	790.6
52.5°	751.4	752.4
55°	709.1	713.2
57.5°	663.9	664.9
60°	613.6	616.6
62.5°	560.3	560.3
65°	503.9	505.9
67.5°	445.6	450.6
70°	386.3	387.3
72.5°	327.9	327.9
75°	267.6	268.6
77.5°	210.2	210.2
80°	155.9	156.9
82.5°	107.6	109.6
85°	67.4	67.4
87.5°	31.2	28.2
90°	35.6	35.6
92.5°	142.4	114.1
95°	496.3	410.7
97.5°	1189.3	1026.3
100°	1713.6	1519.4
102.5°	2229.2	2062.9
105°	2886.7	2797.3
107.5°	3317.4	3339.0
110°	3481.6	3574.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3496.3	3639.3
115°	3403.5	3601.9
117.5°	3207.0	3427.0
120°	3048.6	3262.3
122.5°	2894.3	3105.1
125°	2674.2	2868.4
127.5°	2476.3	2640.2
130°	2359.7	2511.0
132.5°	2253.8	2389.4
135°	2108.9	2225.7
137.5°	1992.6	2088.2
140°	1912.7	2002.1
142.5°	1846.6	1923.5
145°	1747.4	1805.6
147.5°	1671.3	1719.6
150°	1623.4	1662.5
152.5°	1582.4	1612.0
155°	1535.3	1554.9
157.5°	1498.2	1511.9
160°	1475.9	1483.8
162.5°	1461.3	1468.8
165°	1440.3	1448.2
167.5°	1425.3	1428.6
170°	1421.1	1421.1
172.5°	1410.0	1407.1
175°	1403.3	1403.3
177.5°	1397.3	1394.0
180°	1394.0	1394.0



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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	0.38	0.88	1.54	3.17	12.88	13.55	14.05	14.70	16.33
	3H	0.41	1.00	1.58	2.17	3.81	14.70	15.30	15.88	16.46	18.10
	4H	0.70	1.26	1.88	2.43	4.07	15.34	15.90	16.52	17.06	18.71
	6H	0.94	1.46	2.13	2.62	4.28	15.75	16.27	16.94	17.44	19.10
	8H	1.00	1.50	2.19	2.67	4.33	15.86	16.36	17.05	17.54	19.19
	12H	1.01	1.48	2.21	2.65	4.33	15.92	16.39	17.12	17.57	19.24
4H	2H	6.90	7.47	8.09	8.63	10.28	13.13	13.70	14.32	14.86	16.51
	3H	8.45	8.92	9.65	10.11	11.77	15.16	15.63	16.35	16.82	18.48
	4H	8.54	8.97	9.73	10.15	11.83	15.91	16.35	17.11	17.52	19.20
	6H	8.54	8.91	9.74	10.11	11.77	16.43	16.81	17.63	18.00	19.67
	8H	8.51	8.86	9.71	10.04	11.73	16.59	16.94	17.79	18.13	19.81
	12H	8.45	8.77	9.67	9.97	11.66	16.67	16.99	17.88	18.18	19.87
8H	4H	9.96	10.31	11.16	11.50	13.18	15.95	16.30	17.15	17.49	19.18
	6H	10.19	10.48	11.41	11.71	13.39	16.57	16.86	17.79	18.09	19.77
	8H	10.21	10.46	11.43	11.67	13.37	16.78	17.03	18.01	18.24	19.94
	12H	10.17	10.39	11.39	11.59	13.32	16.92	17.14	18.14	18.34	20.07
12H	4H	10.09	10.41	11.31	11.61	13.30	15.90	16.21	17.11	17.41	19.10
	6H	10.45	10.70	11.67	11.91	13.61	16.55	16.80	17.77	18.01	19.71
	8H	10.51	10.73	11.73	11.93	13.66	16.77	16.99	17.99	18.19	19.92