

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: P938241

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938241
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-92765-1D-UNV-STD-W-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

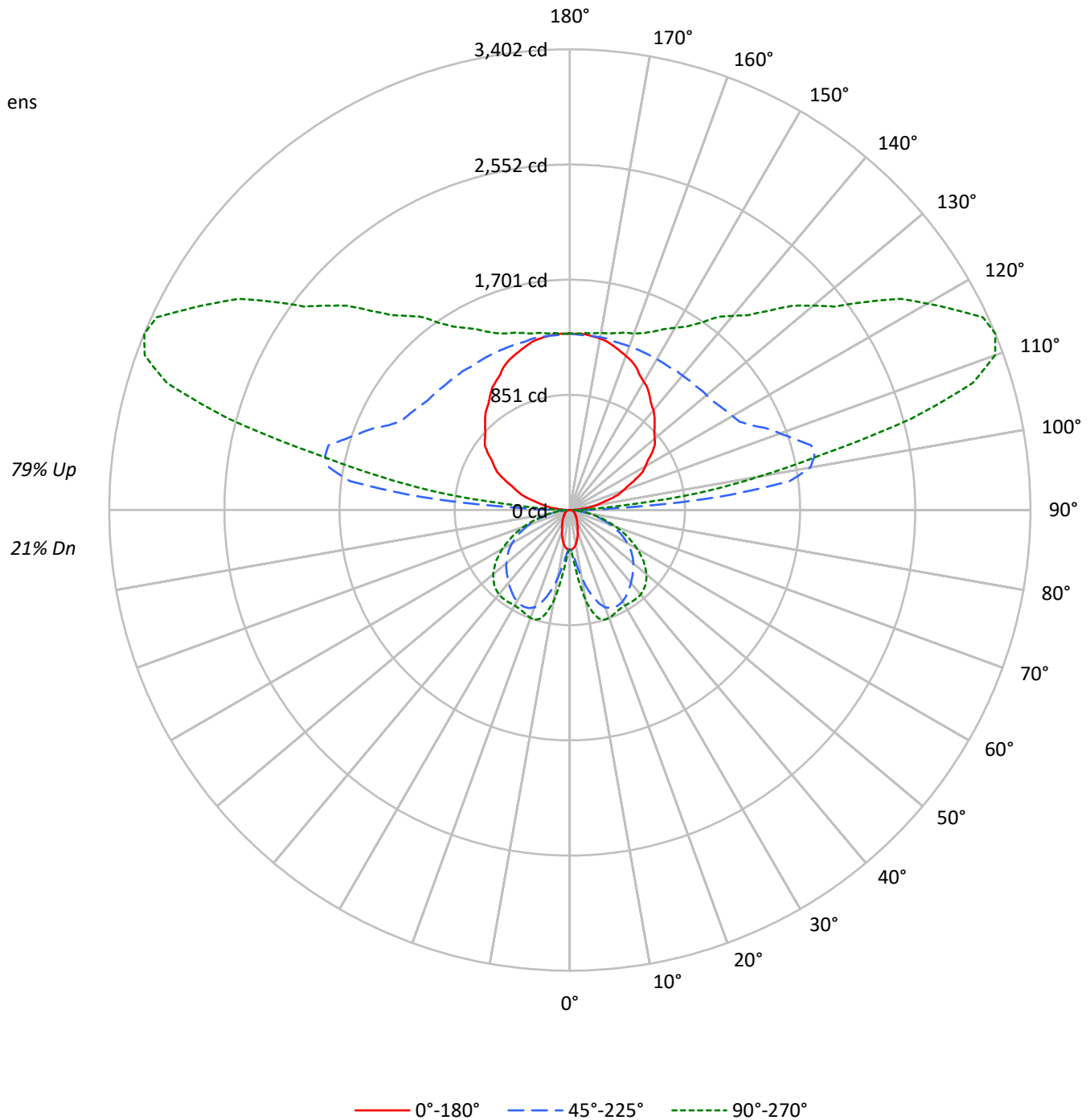
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10713.6 lumens
Efficiency: N/A
Efficacy: 128.5 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_{in}): 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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CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-5000K

Luminous Intensity Polar Plot





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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	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°	1809	1809	1809
5°	1767	2090	2431
10°	1601	3046	4031
15°	1361	3978	4867
20°	1108	4609	4961
25°	924	4822	4860
30°	778	4852	4850
35°	688	4769	4976
40°	599	4664	5106
45°	542	4585	5126
50°	496	4515	5041
55°	475	4413	4817
60°	487	4217	4464
65°	505	3920	3979
70°	536	3416	3362
75°	594	2783	2624
80°	641	1927	1768
85°	560	1023	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5126 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	0.4
10°-20°	167.6	1.6
20°-30°	293.2	2.7
30°-40°	377.5	3.5
40°-50°	421.6	3.9
50°-60°	403.8	3.8
60°-70°	320.0	3.0
70°-80°	188.2	1.8
80°-90°	57.3	0.5
90°-100°	635.1	5.9
100°-110°	1669.8	15.6
110°-120°	1731.4	16.2
120°-130°	1388.8	13.0
130°-140°	1089.7	10.2
140°-150°	836.4	7.8
150°-160°	602.3	5.6
160°-170°	368.5	3.4
170°-180°	124.5	1.2
0°-30°	498.7	4.7
0°-40°	876.1	8.2
0°-60°	1701.5	15.9
0°-90°	2267.0	21.2
90°-120°	4036.3	37.7
90°-150°	7351.2	68.6
90°-180°	8447.0	78.8
0°-180°	10713.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	292	292	292	292	292	
5°	285	306	344	389	403	26
15°	213	394	664	805	830	59
25°	136	447	791	825	826	63
35°	92	427	745	787	818	58
45°	63	340	658	754	788	49
55°	45	216	558	649	667	41
65°	36	115	415	466	473	35
75°	26	70	228	250	251	28
85°	9	22	56	62	63	10
90°	9	24	66	33	33	8
95°	84	329	1094	564	384	93
105°	301	456	1846	2803	2615	319
115°	534	649	1479	2950	3367	528
125°	743	833	1345	2273	2681	660
135°	886	975	1303	1835	2080	685
145°	1028	1093	1286	1565	1688	644
155°	1161	1194	1286	1412	1453	534
165°	1253	1270	1286	1337	1354	354
175°	1303	1303	1295	1312	1312	124
180°	1303	1303	1303	1303	1303	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	292.4	292.4	292.4	292.4	292.4	292.4	292.4	292.4	292.4	292.4	292.4
2.5°	292.4	292.4	294.2	295.2	297.1	298.1	299.9	301.8	307.4	308.4	310.2
5°	284.9	288.6	300.9	305.6	318.7	336.6	344.1	356.3	381.7	389.2	394.0
7.5°	273.6	282.1	312.1	319.7	352.6	399.6	419.3	445.7	486.0	505.9	521.8
10°	255.7	273.6	327.1	345.1	398.7	470.1	506.8	543.4	604.6	631.8	642.1
12.5°	236.0	265.2	343.1	367.6	444.7	549.0	593.3	633.7	703.3	739.9	745.5
15°	213.4	252.9	358.2	394.0	493.6	614.8	663.7	713.6	778.5	804.8	811.4
17.5°	193.7	243.5	372.3	410.0	531.2	674.1	723.9	765.3	818.0	835.8	840.5
20°	169.3	228.4	381.7	430.6	570.7	717.4	765.3	797.3	833.0	844.3	846.2
22.5°	151.3	212.5	387.3	438.1	597.0	743.7	784.1	809.5	833.9	837.7	838.6
25°	136.4	194.6	386.4	446.6	619.6	759.6	790.7	809.5	823.6	825.4	825.4
27.5°	122.3	174.9	382.7	448.5	636.5	763.5	787.9	801.0	807.6	811.4	811.4
30°	110.0	156.1	373.2	444.7	644.0	759.6	779.5	786.0	792.5	798.2	801.0
32.5°	100.6	138.2	359.1	437.2	644.9	750.3	764.4	768.1	777.5	790.7	795.4
35°	92.2	120.4	343.1	426.9	639.3	735.2	744.6	748.4	767.2	786.9	793.5
37.5°	83.7	107.2	322.5	409.0	630.8	717.4	723.9	730.6	759.6	783.2	790.7
40°	75.2	95.9	298.1	389.2	617.7	695.7	701.4	711.7	750.3	777.5	785.1
42.5°	68.6	86.5	271.7	368.6	600.7	671.3	679.7	694.8	739.0	768.1	776.6
45°	63.0	77.1	243.5	340.3	579.1	645.9	658.1	678.8	725.8	754.0	761.5
47.5°	57.4	70.5	214.3	311.2	555.7	620.6	636.5	660.0	707.9	735.2	741.8
50°	52.6	63.9	185.3	280.1	530.3	593.3	612.0	636.5	685.4	710.8	719.3
52.5°	48.9	58.3	158.0	249.2	501.1	565.0	586.7	612.0	658.1	682.6	688.2
55°	45.1	53.6	134.4	216.2	471.0	534.9	558.5	582.9	628.0	648.7	652.5
57.5°	43.3	49.8	114.7	185.3	439.0	501.1	527.5	550.0	592.3	608.3	612.0
60°	40.5	47.0	99.6	158.9	404.3	469.1	491.7	514.3	550.0	563.2	566.0
62.5°	37.6	45.1	88.4	133.5	368.6	431.6	454.1	474.8	504.8	514.3	518.0
65°	35.7	43.3	79.9	114.7	331.9	392.0	414.6	432.5	456.9	466.3	468.2
67.5°	33.8	41.4	73.4	98.7	295.2	352.6	369.5	386.4	405.2	414.6	415.6
70°	31.0	39.4	67.7	87.4	257.6	307.4	321.5	339.4	354.4	359.1	362.0
72.5°	29.2	36.6	63.9	79.0	219.1	264.1	277.3	287.7	300.9	305.6	305.6
75°	26.4	32.9	60.2	70.5	179.6	216.2	227.5	237.9	248.2	250.1	247.2
77.5°	23.5	29.2	51.7	59.3	140.1	171.1	180.5	186.2	194.6	196.5	197.4
80°	19.7	25.4	40.5	46.1	101.5	126.0	132.5	137.3	144.8	144.8	146.7
82.5°	15.0	19.7	29.2	32.9	68.6	86.5	92.2	95.0	99.6	99.6	99.6
85°	9.4	12.2	18.8	21.6	41.4	52.6	56.5	57.4	61.1	62.1	62.1
87.5°	4.7	6.5	12.2	13.2	21.6	27.3	27.3	29.2	29.2	28.2	27.3
90°	8.8	15.8	22.7	24.5	38.5	57.1	66.5	59.1	44.3	33.3	33.3
92.5°	35.0	94.4	153.9	168.8	237.3	328.6	374.3	328.0	235.5	166.2	159.6
95°	83.9	192.7	301.6	328.8	583.9	924.0	1094.0	976.2	740.7	564.0	544.0
97.5°	145.2	241.2	337.1	361.2	786.5	1353.5	1637.0	1562.6	1413.7	1302.1	1264.0
100°	192.4	279.5	366.5	388.3	860.2	1489.5	1804.1	1809.5	1820.4	1828.6	1783.2
102.5°	232.6	313.9	395.1	415.4	894.0	1532.2	1851.3	1946.1	2135.7	2278.0	2239.1
105°	300.8	369.6	438.4	455.6	919.1	1537.0	1846.0	2058.6	2483.8	2802.7	2781.8
107.5°	370.8	434.9	499.0	515.0	923.7	1468.6	1741.1	2037.7	2630.7	3075.6	3080.6
110°	418.0	476.0	533.8	548.3	916.8	1407.9	1653.6	1985.1	2648.2	3145.5	3167.3



TEST NUMBER: P938241

CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	464.4	519.5	574.7	588.5	917.0	1355.0	1574.0	1913.3	2591.9	3100.9	3134.3
115°	534.3	585.2	636.2	648.9	925.5	1294.3	1478.7	1805.6	2459.3	2949.6	2995.9
117.5°	603.4	649.6	695.9	707.5	942.7	1256.3	1413.2	1708.2	2298.1	2740.6	2792.0
120°	643.6	687.2	730.8	741.6	956.7	1243.5	1386.9	1656.5	2195.5	2599.8	2649.7
122.5°	683.0	726.9	770.9	781.8	976.8	1236.8	1366.8	1609.6	2095.0	2459.0	2508.3
125°	743.3	783.3	823.4	833.4	1003.9	1231.3	1344.9	1551.1	1963.4	2272.7	2318.1
127.5°	792.3	832.6	873.1	883.2	1031.0	1228.0	1326.5	1503.6	1857.6	2123.2	2161.5
130°	818.5	862.1	905.6	916.5	1050.9	1230.1	1319.6	1477.2	1792.4	2028.8	2064.1
132.5°	845.6	889.2	932.7	943.6	1066.9	1231.3	1313.4	1454.5	1736.7	1948.3	1980.0
135°	885.8	925.5	965.2	975.1	1084.4	1230.1	1303.0	1421.1	1657.4	1834.6	1861.9
137.5°	926.9	966.2	1005.5	1015.3	1110.6	1237.6	1301.2	1401.1	1600.9	1750.7	1773.0
140°	961.1	997.2	1033.3	1042.4	1126.6	1239.0	1295.1	1381.4	1553.9	1683.4	1704.2
142.5°	987.2	1020.7	1054.2	1062.5	1140.1	1243.4	1295.1	1370.9	1522.4	1636.1	1654.1
145°	1027.5	1056.7	1085.8	1093.1	1157.5	1243.4	1286.3	1348.3	1472.3	1565.4	1578.9
147.5°	1067.7	1096.1	1124.5	1131.6	1183.2	1251.9	1286.3	1335.1	1432.6	1505.8	1517.1
150°	1094.0	1119.6	1145.2	1151.7	1196.5	1256.4	1286.3	1327.6	1409.9	1471.7	1480.9
152.5°	1121.1	1140.5	1160.0	1164.8	1205.3	1259.3	1286.3	1321.5	1391.9	1444.6	1451.5
155°	1161.3	1175.7	1190.1	1193.6	1224.6	1265.8	1286.3	1314.3	1370.3	1412.2	1416.8
157.5°	1191.0	1205.0	1219.0	1222.5	1243.8	1272.1	1286.3	1308.1	1351.7	1384.3	1387.5
160°	1211.2	1222.0	1232.9	1235.6	1252.5	1275.0	1286.3	1305.0	1342.3	1370.3	1372.1
162.5°	1231.3	1239.4	1247.6	1249.6	1261.9	1278.2	1286.3	1302.0	1333.5	1357.2	1359.0
165°	1253.2	1260.5	1267.8	1269.7	1275.2	1282.6	1286.3	1297.7	1320.2	1337.1	1339.0
167.5°	1273.3	1276.7	1280.3	1281.1	1285.8	1292.0	1295.1	1302.5	1317.3	1328.3	1329.1
170°	1286.3	1289.8	1293.4	1294.2	1294.5	1294.9	1295.1	1302.5	1317.3	1328.3	1328.3
172.5°	1293.4	1294.1	1294.9	1295.1	1295.1	1295.1	1295.1	1300.9	1312.6	1321.3	1320.6
175°	1303.0	1303.0	1303.0	1303.0	1300.4	1296.9	1295.1	1298.8	1306.2	1311.7	1311.7
177.5°	1303.0	1303.0	1303.0	1303.0	1300.9	1298.2	1296.8	1299.7	1305.6	1310.0	1309.2
180°	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0	1303.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	292.4	292.4
2.5°	312.1	310.2
5°	401.5	403.3
7.5°	540.6	539.7
10°	672.2	680.7
12.5°	768.1	770.0
15°	826.5	830.2
17.5°	849.0	849.9
20°	849.9	848.1
22.5°	839.6	837.7
25°	827.4	826.5
27.5°	816.1	817.0
30°	811.4	814.2
32.5°	811.4	816.1
35°	813.3	818.0
37.5°	812.4	818.0
40°	808.5	815.2
42.5°	798.2	802.9
45°	782.3	787.9
47.5°	761.5	765.3
50°	735.2	739.0
52.5°	702.3	703.3
55°	662.8	666.6
57.5°	620.6	621.5
60°	573.5	576.3
62.5°	523.7	523.7
65°	471.0	472.9
67.5°	416.5	421.2
70°	361.1	362.0
72.5°	306.5	306.5
75°	250.1	251.1
77.5°	196.5	196.5
80°	145.7	146.7
82.5°	100.6	102.4
85°	63.0	63.0
87.5°	29.2	26.4
90°	33.3	33.3
92.5°	133.1	106.6
95°	463.9	383.9
97.5°	1111.6	959.3
100°	1601.7	1420.2
102.5°	2083.6	1928.2
105°	2698.2	2614.7
107.5°	3100.8	3121.0
110°	3254.3	3341.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3268.0	3401.7
115°	3181.3	3366.7
117.5°	2997.6	3203.2
120°	2849.5	3049.3
122.5°	2705.3	2902.4
125°	2499.6	2681.1
127.5°	2314.6	2467.8
130°	2205.6	2347.0
132.5°	2106.6	2233.4
135°	1971.2	2080.4
137.5°	1862.5	1951.9
140°	1787.8	1871.4
142.5°	1726.0	1797.9
145°	1633.3	1687.7
147.5°	1562.2	1607.3
150°	1517.4	1553.9
152.5°	1479.1	1506.7
155°	1435.1	1453.4
157.5°	1400.4	1413.2
160°	1379.5	1386.9
162.5°	1365.9	1372.9
165°	1346.3	1353.6
167.5°	1332.2	1335.3
170°	1328.3	1328.3
172.5°	1317.9	1315.2
175°	1311.7	1311.7
177.5°	1306.1	1303.0
180°	1303.0	1303.0



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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	0.15	0.65	1.30	2.93	12.65	13.31	13.82	14.47	16.10
	3H	0.17	0.77	1.35	1.93	3.57	14.47	15.06	15.64	16.23	17.87
	4H	0.46	1.03	1.64	2.19	3.84	15.10	15.67	16.28	16.83	18.48
	6H	0.70	1.22	1.89	2.39	4.05	15.52	16.04	16.71	17.20	18.86
	8H	0.76	1.26	1.96	2.44	4.09	15.63	16.12	16.82	17.30	18.95
	12H	0.77	1.25	1.97	2.42	4.09	15.69	16.16	16.88	17.33	19.00
4H	2H	6.67	7.23	7.86	8.39	10.04	12.90	13.47	14.09	14.63	16.28
	3H	8.22	8.69	9.41	9.88	11.54	14.92	15.39	16.12	16.58	18.24
	4H	8.30	8.74	9.50	9.91	11.59	15.68	16.11	16.87	17.29	18.97
	6H	8.30	8.67	9.50	9.87	11.54	16.20	16.57	17.40	17.77	19.44
	8H	8.27	8.62	9.47	9.81	11.49	16.35	16.70	17.55	17.89	19.58
	12H	8.22	8.54	9.43	9.73	11.42	16.43	16.75	17.65	17.95	19.64
8H	4H	9.73	10.07	10.92	11.26	12.95	15.72	16.07	16.92	17.26	18.94
	6H	9.96	10.25	11.18	11.48	13.16	16.33	16.62	17.55	17.85	19.53
	8H	9.97	10.22	11.20	11.43	13.13	16.55	16.80	17.77	18.01	19.71
	12H	9.93	10.15	11.16	11.36	13.09	16.68	16.90	17.91	18.11	19.84
12H	4H	9.86	10.18	11.07	11.37	13.06	15.66	15.98	16.88	17.18	18.87
	6H	10.21	10.46	11.44	11.67	13.37	16.32	16.57	17.54	17.77	19.47
	8H	10.27	10.49	11.50	11.70	13.43	16.53	16.75	17.76	17.96	19.69