

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: P936873

Luminaire Tested: SQ4-FB-050U-100D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936873
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

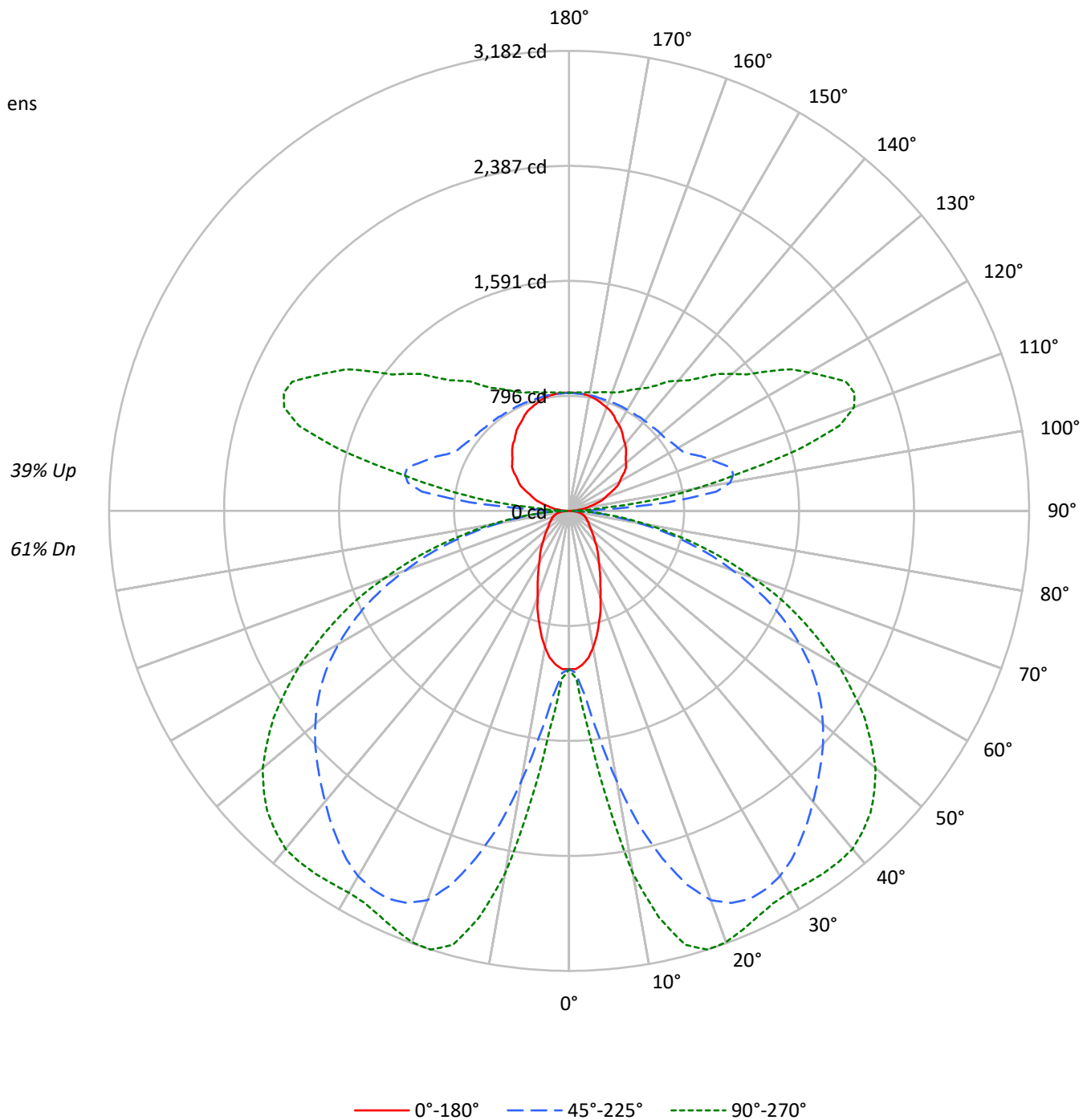
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13774.6 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 135.6
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				
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3386	3386	3386
5°	3309	3914	4551
10°	3003	5707	7545
15°	2553	7458	9110
20°	2079	8645	9285
25°	1735	9049	9096
30°	1464	9108	9079
35°	1295	8959	9314
40°	1129	8765	9556
45°	1023	8624	9594
50°	939	8497	9435
55°	901	8310	9017
60°	923	7949	8356
65°	961	7398	7449
70°	1027	6457	6293
75°	1143	5269	4911
80°	1257	3659	3309
85°	1141	1945	1694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9594 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.6	1.0
10°-20°	627.5	4.6
20°-30°	1097.7	8.0
30°-40°	1413.0	10.3
40°-50°	1578.3	11.5
50°-60°	1511.7	11.0
60°-70°	1198.0	8.7
70°-80°	704.5	5.1
80°-90°	198.8	1.4
90°-100°	398.8	2.9
100°-110°	1048.4	7.6
110°-120°	1087.1	7.9
120°-130°	872.0	6.3
130°-140°	684.2	5.0
140°-150°	525.2	3.8
150°-160°	378.2	2.7
160°-170°	231.4	1.7
170°-180°	78.2	0.6
0°-30°	1866.8	13.6
0°-40°	3279.9	23.8
0°-60°	6369.8	46.2
0°-90°	8471.1	61.5
90°-120°	2534.3	18.4
90°-150°	4615.7	33.5
90°-180°	5304.0	38.5
0°-180°	13774.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1066	1144	1288	1457	1510	98
15°	799	1475	2485	3013	3108	222
25°	510	1672	2960	3090	3094	235
35°	345	1598	2788	2946	3062	215
45°	236	1274	2464	2823	2950	182
55°	169	810	2091	2429	2496	154
65°	134	429	1552	1746	1770	133
75°	99	264	852	936	940	103
85°	35	81	211	232	236	37
90°	6	15	42	21	21	7
95°	53	206	687	354	241	59
105°	189	286	1159	1760	1642	200
115°	336	407	928	1852	2114	331
125°	467	523	844	1427	1684	414
135°	556	612	818	1152	1306	430
145°	645	686	808	983	1060	404
155°	729	750	808	887	913	335
165°	787	797	808	840	850	222
175°	818	818	813	824	824	78
180°	818	818	818	818	818	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6
2.5°	1094.6	1094.6	1101.7	1105.2	1112.2	1115.8	1122.8	1129.8	1150.9	1154.5	1161.5
5°	1066.5	1080.5	1126.3	1143.9	1193.2	1260.1	1288.2	1334.0	1429.0	1457.1	1474.7
7.5°	1024.2	1055.9	1168.5	1196.7	1319.8	1495.8	1569.8	1668.3	1819.7	1893.6	1953.4
10°	957.4	1024.2	1224.8	1291.7	1492.4	1759.8	1897.1	2034.4	2263.2	2365.2	2403.9
12.5°	883.5	992.5	1284.7	1376.2	1664.8	2055.5	2220.9	2372.3	2632.7	2770.0	2791.1
15°	798.9	946.8	1341.0	1474.7	1847.8	2301.9	2484.9	2671.5	2914.3	3012.8	3037.5
17.5°	725.1	911.6	1393.8	1534.6	1988.6	2523.6	2710.2	2865.0	3062.1	3129.0	3146.6
20°	633.5	855.3	1429.0	1612.0	2136.4	2685.5	2865.0	2984.7	3118.4	3160.7	3167.7
22.5°	566.6	795.5	1450.1	1640.1	2235.0	2784.1	2935.4	3030.5	3121.9	3136.1	3139.5
25°	510.3	728.6	1446.6	1671.8	2319.5	2843.9	2960.1	3030.5	3083.2	3090.2	3090.2
27.5°	457.6	654.6	1432.5	1678.9	2382.9	2857.9	2949.5	2998.8	3023.4	3037.5	3037.5
30°	411.8	584.3	1397.3	1664.8	2411.0	2843.9	2917.8	2942.5	2967.1	2988.2	2998.8
32.5°	376.6	517.3	1344.5	1636.7	2414.5	2808.7	2861.5	2875.6	2910.8	2960.1	2977.6
35°	344.9	450.5	1284.7	1598.0	2393.3	2752.4	2787.6	2801.6	2872.1	2945.9	2970.6
37.5°	313.3	401.3	1207.2	1531.1	2361.7	2685.5	2710.2	2734.8	2843.9	2931.9	2960.1
40°	281.6	359.0	1115.8	1457.1	2312.4	2604.6	2625.6	2664.4	2808.7	2910.8	2938.9
42.5°	256.9	323.9	1017.2	1379.7	2249.0	2513.0	2544.7	2601.0	2766.5	2875.6	2907.2
45°	235.9	288.6	911.6	1274.1	2168.1	2418.0	2463.8	2541.2	2717.2	2822.8	2850.9
47.5°	214.7	264.0	802.5	1165.1	2080.1	2323.0	2382.9	2470.8	2650.3	2752.4	2777.0
50°	197.1	239.3	693.4	1048.9	1985.1	2220.9	2291.3	2382.9	2565.9	2660.9	2692.6
52.5°	183.0	218.2	591.3	932.8	1876.0	2115.3	2196.3	2291.3	2463.8	2555.3	2576.4
55°	169.0	200.6	503.3	809.5	1763.4	2002.7	2090.7	2182.2	2351.2	2428.6	2442.6
57.5°	161.9	186.6	429.4	693.4	1643.7	1876.0	1974.6	2059.0	2217.4	2277.2	2291.3
60°	151.3	176.0	373.0	594.8	1513.4	1756.3	1840.8	1925.3	2059.0	2108.3	2118.9
62.5°	140.7	169.0	330.9	499.8	1379.7	1615.5	1700.0	1777.4	1890.1	1925.3	1939.3
65°	133.7	161.9	299.2	429.4	1242.5	1467.7	1552.1	1619.1	1710.6	1745.7	1752.8
67.5°	126.7	154.9	274.6	369.6	1105.2	1319.8	1383.2	1446.6	1517.0	1552.1	1555.7
70°	116.2	147.9	253.4	327.3	964.4	1150.9	1203.8	1270.6	1326.9	1344.5	1355.1
72.5°	109.1	137.3	239.3	295.6	820.1	989.1	1038.3	1077.1	1126.3	1143.9	1143.9
75°	98.6	123.2	225.3	264.0	672.2	809.5	851.8	890.5	929.2	936.2	925.7
77.5°	88.0	109.1	193.6	221.7	524.5	640.6	675.8	696.9	728.6	735.6	739.2
80°	73.9	95.0	151.3	172.4	380.2	471.6	496.3	513.9	542.0	542.0	549.1
82.5°	56.3	73.9	109.1	123.2	256.9	323.9	344.9	355.5	373.0	373.0	373.0
85°	35.2	45.7	70.4	81.0	154.9	197.1	211.2	214.7	228.7	232.3	232.3
87.5°	17.6	24.6	45.7	49.3	81.0	102.0	102.0	109.1	109.1	105.6	102.0
90°	5.5	9.9	14.3	15.4	24.2	35.9	41.7	37.1	27.8	20.9	20.9
92.5°	21.9	59.2	96.6	105.9	148.9	206.3	235.0	205.9	147.9	104.3	100.2
95°	52.7	121.0	189.4	206.5	366.6	580.1	686.9	612.9	465.0	354.1	341.5
97.5°	91.1	151.4	211.7	226.8	493.8	849.8	1027.9	981.2	887.6	817.6	793.7
100°	120.8	175.5	230.1	243.8	540.1	935.2	1132.7	1136.1	1142.9	1148.1	1119.6
102.5°	146.1	197.0	248.0	260.8	561.3	962.1	1162.4	1221.9	1341.0	1430.3	1405.9
105°	188.9	232.0	275.2	286.0	577.0	965.1	1159.1	1292.6	1559.5	1759.7	1746.6
107.5°	232.8	273.1	313.4	323.4	580.0	922.2	1093.2	1279.4	1651.9	1931.1	1934.3
110°	262.5	298.8	335.2	344.3	575.6	884.1	1038.3	1246.5	1662.8	1975.0	1988.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	291.5	326.2	360.8	369.5	575.8	850.8	988.3	1201.4	1627.4	1947.0	1968.0
115°	335.5	367.5	399.4	407.4	581.1	812.7	928.5	1133.7	1544.1	1852.0	1881.1
117.5°	378.8	407.9	436.9	444.2	591.9	788.8	887.3	1072.5	1442.9	1720.8	1753.0
120°	404.1	431.5	458.7	465.6	600.6	780.8	870.9	1040.1	1378.5	1632.4	1663.8
122.5°	428.8	456.4	484.0	490.9	613.3	776.6	858.2	1010.5	1315.4	1544.0	1574.9
125°	466.7	491.9	517.0	523.3	630.4	773.1	844.5	974.0	1232.8	1427.0	1455.5
127.5°	497.5	522.9	548.3	554.6	647.4	771.1	832.9	944.1	1166.4	1333.2	1357.2
130°	514.0	541.3	568.6	575.4	659.8	772.3	828.6	927.5	1125.5	1273.8	1296.0
132.5°	530.9	558.3	585.6	592.5	669.9	773.1	824.7	913.3	1090.5	1223.3	1243.2
135°	556.2	581.1	606.0	612.2	680.8	772.4	818.1	892.4	1040.7	1152.0	1169.1
137.5°	582.0	606.7	631.4	637.5	697.3	777.2	817.0	879.7	1005.2	1099.3	1113.3
140°	603.4	626.1	648.8	654.5	707.4	777.9	813.1	867.3	975.7	1057.0	1070.1
142.5°	619.9	640.9	661.9	667.2	715.8	780.7	813.1	860.7	955.9	1027.3	1038.6
145°	645.1	663.4	681.7	686.3	726.8	780.7	807.7	846.6	924.5	982.8	991.4
147.5°	670.4	688.2	706.0	710.5	742.9	786.1	807.7	838.4	899.6	945.5	952.6
150°	686.9	702.9	719.1	723.1	751.3	788.9	807.7	833.6	885.2	924.1	929.8
152.5°	703.9	716.1	728.3	731.4	756.8	790.8	807.7	829.8	874.0	907.1	911.4
155°	729.1	738.2	747.3	749.5	768.9	794.8	807.7	825.3	860.4	886.8	889.6
157.5°	747.9	756.7	765.4	767.6	781.0	798.8	807.7	821.4	848.7	869.2	871.2
160°	760.5	767.3	774.2	775.8	786.5	800.6	807.7	819.4	842.8	860.4	861.5
162.5°	773.1	778.2	783.4	784.6	792.4	802.6	807.7	817.6	837.3	852.1	853.2
165°	786.9	791.5	796.1	797.2	800.7	805.4	807.7	814.8	828.9	839.5	840.7
167.5°	799.5	801.6	803.8	804.4	807.3	811.2	813.1	817.8	827.1	834.0	834.5
170°	807.7	809.9	812.1	812.6	812.8	813.1	813.1	817.8	827.1	834.0	834.0
172.5°	812.1	812.5	813.1	813.1	813.1	813.1	813.1	816.8	824.2	829.7	829.2
175°	818.1	818.1	818.1	818.1	816.4	814.2	813.1	815.5	820.2	823.6	823.6
177.5°	818.1	818.1	818.1	818.1	816.9	815.2	814.3	816.2	819.8	822.6	822.0
180°	818.1	818.1	818.1	818.1	818.1	818.1	818.1	818.1	818.1	818.1	818.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1094.6	1094.6
2.5°	1168.5	1161.5
5°	1502.9	1510.0
7.5°	2023.8	2020.3
10°	2516.6	2548.2
12.5°	2875.6	2882.6
15°	3093.8	3107.9
17.5°	3178.2	3181.8
20°	3181.8	3174.8
22.5°	3143.1	3136.1
25°	3097.3	3093.8
27.5°	3055.1	3058.6
30°	3037.5	3048.1
32.5°	3037.5	3055.1
35°	3044.5	3062.1
37.5°	3041.0	3062.1
40°	3026.9	3051.5
42.5°	2988.2	3005.8
45°	2928.4	2949.5
47.5°	2850.9	2865.0
50°	2752.4	2766.5
52.5°	2629.2	2632.7
55°	2481.3	2495.5
57.5°	2323.0	2326.5
60°	2147.0	2157.6
62.5°	1960.4	1960.4
65°	1763.4	1770.4
67.5°	1559.2	1576.8
70°	1351.5	1355.1
72.5°	1147.4	1147.4
75°	936.2	939.8
77.5°	735.6	735.6
80°	545.6	549.1
82.5°	376.6	383.6
85°	235.9	235.9
87.5°	109.1	98.6
90°	20.9	20.9
92.5°	83.6	67.0
95°	291.3	241.0
97.5°	698.0	602.3
100°	1005.7	891.7
102.5°	1308.3	1210.7
105°	1694.2	1641.7
107.5°	1946.9	1959.6
110°	2043.3	2098.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2052.0	2135.9
115°	1997.6	2114.0
117.5°	1882.1	2011.2
120°	1789.2	1914.6
122.5°	1698.7	1822.4
125°	1569.5	1683.5
127.5°	1453.3	1549.5
130°	1384.9	1473.7
132.5°	1322.8	1402.3
135°	1237.7	1306.2
137.5°	1169.4	1225.5
140°	1122.5	1175.0
142.5°	1083.8	1128.9
145°	1025.6	1059.7
147.5°	980.9	1009.2
150°	952.7	975.7
152.5°	928.8	946.1
155°	901.1	912.6
157.5°	879.2	887.3
160°	866.2	870.9
162.5°	857.6	862.1
165°	845.4	850.0
167.5°	836.5	838.4
170°	834.0	834.0
172.5°	827.5	825.8
175°	823.6	823.6
177.5°	820.1	818.1
180°	818.1	818.1



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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	6.23	7.26	7.07	8.13	9.22	19.42	20.45	20.27	21.32	22.41
	3H	6.95	7.87	7.80	8.75	9.87	21.28	22.20	22.13	23.08	24.20
	4H	7.25	8.13	8.13	9.02	10.15	21.94	22.81	22.81	23.70	24.83
	6H	7.51	8.32	8.40	9.21	10.36	22.38	23.19	23.26	24.08	25.22
	8H	7.59	8.36	8.48	9.27	10.41	22.51	23.28	23.40	24.19	25.33
	12H	7.61	8.34	8.51	9.25	10.42	22.58	23.32	23.48	24.22	25.39
4H	2H	13.47	14.35	14.35	15.23	16.36	19.72	20.59	20.59	21.48	22.61
	3H	15.06	15.79	15.94	16.71	17.85	21.78	22.51	22.67	23.43	24.58
	4H	15.16	15.83	16.06	16.74	17.91	22.56	23.23	23.46	24.14	25.31
	6H	15.18	15.76	16.09	16.70	17.87	23.11	23.69	24.03	24.63	25.80
	8H	15.16	15.70	16.08	16.63	17.82	23.28	23.82	24.20	24.76	25.94
	12H	15.12	15.61	16.06	16.57	17.76	23.39	23.88	24.32	24.83	26.02
8H	4H	16.62	17.16	17.54	18.10	19.28	22.63	23.18	23.55	24.11	25.30
	6H	16.87	17.32	17.81	18.29	19.48	23.27	23.73	24.22	24.70	25.89
	8H	16.89	17.29	17.84	18.25	19.46	23.50	23.90	24.45	24.86	26.07
	12H	16.87	17.22	17.82	18.18	19.43	23.66	24.01	24.61	24.97	26.22
12H	4H	16.77	17.26	17.71	18.21	19.41	22.59	23.08	23.53	24.04	25.23
	6H	17.13	17.53	18.09	18.50	19.70	23.26	23.66	24.21	24.63	25.83
	8H	17.21	17.56	18.17	18.52	19.77	23.50	23.85	24.46	24.81	26.06