

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: P936973

Luminaire Tested: SQ4-FB-050U-125D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936973
REPORT IS A COMBINATION OF REPORTS P933464 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

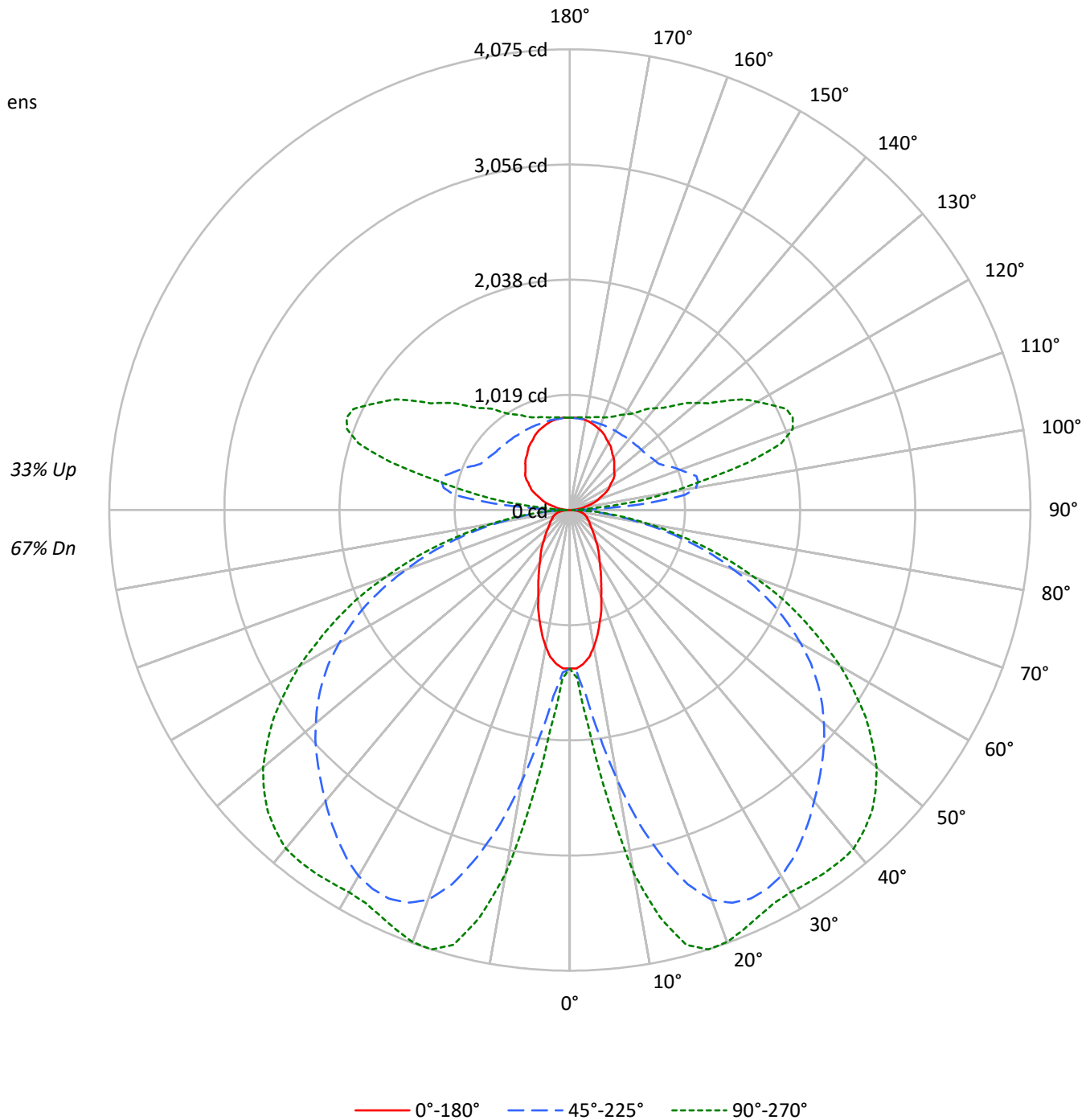
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16152.7 lumens
Efficiency: N/A
Efficacy: 96.1 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): 168
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									
RC	80									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	50	30	10	0													
RCR																																					
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67						67													
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55						55													
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45						45													
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37						37													
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31						31													
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26						26													
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23						23													
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20						20													
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17						17													
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15						15													
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14						14													

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4337	4337	4337
5°	4238	5014	5829
10°	3846	7310	9663
15°	3270	9552	11669
20°	2663	11072	11892
25°	2222	11590	11650
30°	1875	11666	11628
35°	1659	11475	11929
40°	1446	11226	12240
45°	1310	11046	12288
50°	1203	10883	12085
55°	1153	10645	11549
60°	1182	10181	10703
65°	1232	9476	9541
70°	1315	8269	8060
75°	1463	6749	6290
80°	1611	4686	4239
85°	1461	2491	2169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12288 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.4	1.1
10°-20°	803.8	5.0
20°-30°	1405.9	8.7
30°-40°	1809.9	11.2
40°-50°	2021.6	12.5
50°-60°	1936.2	12.0
60°-70°	1534.4	9.5
70°-80°	902.3	5.6
80°-90°	253.8	1.6
90°-100°	398.8	2.5
100°-110°	1048.4	6.5
110°-120°	1087.1	6.7
120°-130°	872.0	5.4
130°-140°	684.2	4.2
140°-150°	525.2	3.3
150°-160°	378.2	2.3
160°-170°	231.4	1.4
170°-180°	78.2	0.5
0°-30°	2391.1	14.8
0°-40°	4200.9	26.0
0°-60°	8158.7	50.5
0°-90°	10849.2	67.2
90°-120°	2534.3	15.7
90°-150°	4615.7	28.6
90°-180°	5304.0	32.8
0°-180°	16152.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1366	1465	1650	1866	1934	126
15°	1023	1889	3183	3859	3981	285
25°	654	2141	3791	3958	3963	301
35°	442	2047	3570	3773	3922	276
45°	302	1632	3156	3616	3778	234
55°	216	1037	2678	3111	3196	197
65°	171	550	1988	2236	2268	170
75°	126	338	1091	1199	1204	132
85°	45	104	270	298	302	48
90°	6	15	42	21	21	8
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°	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1	1402.1
2.5°	1402.1	1402.1	1411.0	1415.6	1424.5	1429.1	1438.1	1447.1	1474.2	1478.7	1487.7
5°	1365.9	1383.9	1442.6	1465.1	1528.2	1613.9	1650.0	1708.6	1830.3	1866.4	1888.9
7.5°	1311.8	1352.4	1496.7	1532.8	1690.6	1915.9	2010.6	2136.9	2330.7	2425.4	2502.0
10°	1226.2	1311.8	1568.8	1654.4	1911.4	2254.0	2429.8	2605.7	2898.7	3029.4	3079.1
12.5°	1131.6	1271.3	1645.5	1762.7	2132.4	2632.7	2844.6	3038.5	3372.1	3547.9	3574.9
15°	1023.3	1212.7	1717.6	1888.9	2366.8	2948.3	3182.7	3421.6	3732.7	3859.0	3890.5
17.5°	928.7	1167.6	1785.2	1965.5	2547.1	3232.3	3471.3	3669.6	3922.0	4007.7	4030.3
20°	811.5	1095.4	1830.3	2064.7	2736.5	3439.7	3669.6	3822.8	3994.2	4048.3	4057.3
22.5°	725.8	1018.8	1857.3	2100.7	2862.6	3565.9	3759.8	3881.4	3998.7	4016.7	4021.2
25°	653.7	933.2	1852.8	2141.3	2970.8	3642.6	3791.3	3881.4	3949.1	3958.1	3958.1
27.5°	586.1	838.5	1834.8	2150.4	3052.0	3660.6	3777.8	3840.9	3872.5	3890.5	3890.5
30°	527.5	748.3	1789.7	2132.4	3088.0	3642.6	3737.2	3768.8	3800.4	3827.4	3840.9
32.5°	482.4	662.7	1722.1	2096.3	3092.5	3597.5	3665.1	3683.2	3728.2	3791.3	3813.9
35°	441.8	577.0	1645.5	2046.7	3065.6	3525.4	3570.4	3588.5	3678.6	3773.3	3804.8
37.5°	401.2	513.9	1546.3	1961.1	3025.0	3439.7	3471.3	3502.8	3642.6	3755.3	3791.3
40°	360.6	459.8	1429.1	1866.4	2961.8	3336.0	3363.0	3412.7	3597.5	3728.2	3764.2
42.5°	329.1	414.8	1302.9	1767.2	2880.7	3218.8	3259.4	3331.5	3543.4	3683.2	3723.7
45°	302.0	369.7	1167.6	1632.0	2777.0	3097.1	3155.7	3254.9	3480.2	3615.5	3651.5
47.5°	275.0	338.2	1027.9	1492.2	2664.3	2975.3	3052.0	3164.7	3394.6	3525.4	3556.9
50°	252.5	306.5	888.1	1343.5	2542.6	2844.6	2934.8	3052.0	3286.4	3408.1	3448.7
52.5°	234.4	279.5	757.4	1194.6	2402.8	2709.4	2813.1	2934.8	3155.7	3272.9	3299.9
55°	216.4	257.0	644.7	1036.8	2258.5	2565.1	2677.9	2795.1	3011.4	3110.6	3128.6
57.5°	207.3	239.0	550.0	888.1	2105.3	2402.8	2529.0	2637.3	2840.1	2916.7	2934.8
60°	193.9	225.4	477.8	761.9	1938.5	2249.6	2357.7	2466.0	2637.3	2700.3	2713.9
62.5°	180.4	216.4	423.8	640.2	1767.2	2069.2	2177.4	2276.6	2420.9	2466.0	2484.0
65°	171.3	207.3	383.2	550.0	1591.4	1879.9	1988.1	2073.7	2191.0	2236.0	2245.0
67.5°	162.3	198.4	351.6	473.4	1415.6	1690.6	1771.6	1852.8	1943.0	1988.1	1992.6
70°	148.7	189.3	324.6	419.2	1235.2	1474.2	1541.7	1627.4	1699.5	1722.1	1735.6
72.5°	139.8	175.8	306.5	378.6	1050.4	1266.8	1329.9	1379.5	1442.6	1465.1	1465.1
75°	126.2	157.8	288.5	338.2	861.0	1036.8	1091.0	1140.5	1190.1	1199.2	1185.7
77.5°	112.7	139.8	247.9	284.0	671.7	820.5	865.5	892.6	933.2	942.2	946.7
80°	94.7	121.7	193.9	220.9	486.9	604.1	635.6	658.2	694.2	694.2	703.3
82.5°	72.1	94.7	139.8	157.8	329.1	414.8	441.8	455.3	477.8	477.8	477.8
85°	45.1	58.6	90.1	103.7	198.4	252.5	270.5	275.0	293.0	297.6	297.6
87.5°	22.6	31.5	58.6	63.1	103.7	130.7	130.7	139.8	139.8	135.2	130.7
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°	1402.1	1402.1
2.5°	1496.7	1487.7
5°	1925.0	1934.0
7.5°	2592.2	2587.6
10°	3223.3	3263.8
12.5°	3683.2	3692.1
15°	3962.6	3980.6
17.5°	4070.9	4075.3
20°	4075.3	4066.3
22.5°	4025.7	4016.7
25°	3967.1	3962.6
27.5°	3913.1	3917.6
30°	3890.5	3904.0
32.5°	3890.5	3913.1
35°	3899.5	3922.0
37.5°	3895.0	3922.0
40°	3877.0	3908.5
42.5°	3827.4	3849.9
45°	3750.7	3777.8
47.5°	3651.5	3669.6
50°	3525.4	3543.4
52.5°	3367.6	3372.1
55°	3178.2	3196.3
57.5°	2975.3	2979.9
60°	2750.0	2763.5
62.5°	2511.0	2511.0
65°	2258.5	2267.6
67.5°	1997.1	2019.7
70°	1731.2	1735.6
72.5°	1469.6	1469.6
75°	1199.2	1203.7
77.5°	942.2	942.2
80°	698.8	703.3
82.5°	482.4	491.4
85°	302.0	302.0
87.5°	139.8	126.2
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	7.53	8.63	8.32	9.45	10.45	20.73	21.82	21.51	22.64	23.64
	3H	8.26	9.25	9.06	10.07	11.10	22.59	23.58	23.39	24.40	25.43
	4H	8.57	9.50	9.38	10.33	11.37	23.25	24.18	24.06	25.02	26.05
	6H	8.83	9.69	9.66	10.53	11.59	23.70	24.56	24.52	25.40	26.45
	8H	8.90	9.73	9.74	10.59	11.64	23.83	24.65	24.66	25.51	26.56
	12H	8.93	9.72	9.77	10.57	11.65	23.90	24.69	24.75	25.54	26.63
4H	2H	14.79	15.72	15.61	16.55	17.59	21.03	21.96	21.85	22.80	23.83
	3H	16.37	17.16	17.21	18.02	19.08	23.10	23.89	23.93	24.75	25.81
	4H	16.48	17.19	17.32	18.06	19.14	23.88	24.60	24.73	25.46	26.54
	6H	16.50	17.13	17.37	18.01	19.10	24.44	25.06	25.30	25.95	27.03
	8H	16.49	17.07	17.35	17.95	19.05	24.61	25.19	25.48	26.07	27.17
	12H	16.46	16.98	17.34	17.88	18.99	24.72	25.24	25.60	26.15	27.25
8H	4H	17.95	18.53	18.81	19.41	20.51	23.96	24.54	24.83	25.43	26.52
	6H	18.20	18.68	19.09	19.61	20.71	24.61	25.09	25.50	26.01	27.11
	8H	18.22	18.65	19.13	19.57	20.68	24.83	25.26	25.74	26.18	27.29
	12H	18.20	18.58	19.11	19.49	20.66	24.99	25.37	25.90	26.28	27.45
12H	4H	18.10	18.63	18.99	19.53	20.64	23.93	24.45	24.81	25.35	26.46
	6H	18.46	18.89	19.37	19.81	20.93	24.59	25.02	25.50	25.94	27.06
	8H	18.55	18.92	19.45	19.83	21.00	24.84	25.22	25.75	26.13	27.29