

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: P936879

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936879
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-B2750-1D-UNV-W2A-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

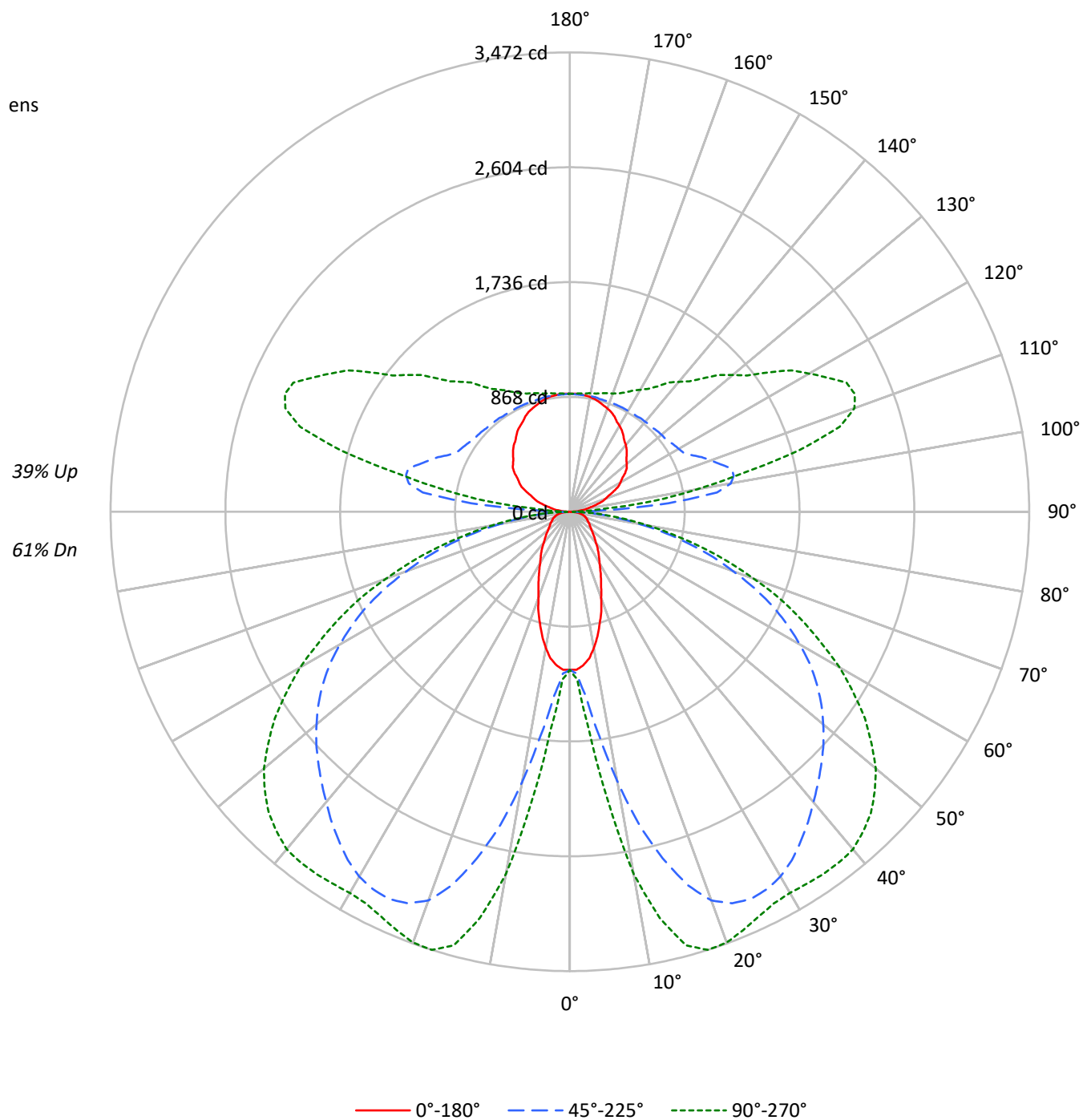
Lumens per Lamp: N/A
Luminaire Lumens: 15031.1 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

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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CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-12-3500K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3695	3695	3695
5°	3611	4271	4966
10°	3276	6228	8233
15°	2785	8138	9941
20°	2269	9433	10132
25°	1893	9874	9926
30°	1597	9939	9907
35°	1413	9777	10163
40°	1232	9564	10428
45°	1117	9410	10469
50°	1025	9272	10295
55°	983	9069	9839
60°	1007	8674	9119
65°	1049	8073	8128
70°	1120	7046	6867
75°	1247	5750	5359
80°	1371	3993	3611
85°	1244	2121	1849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10469 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	1.0
10°-20°	684.8	4.6
20°-30°	1197.8	8.0
30°-40°	1541.9	10.3
40°-50°	1722.3	11.5
50°-60°	1649.5	11.0
60°-70°	1307.3	8.7
70°-80°	768.7	5.1
80°-90°	217.0	1.4
90°-100°	435.1	2.9
100°-110°	1144.1	7.6
110°-120°	1186.3	7.9
120°-130°	951.5	6.3
130°-140°	746.6	5.0
140°-150°	573.1	3.8
150°-160°	412.7	2.7
160°-170°	252.5	1.7
170°-180°	85.3	0.6
0°-30°	2037.1	13.6
0°-40°	3579.0	23.8
0°-60°	6950.9	46.2
0°-90°	9243.8	61.5
90°-120°	2765.5	18.4
90°-150°	5036.8	33.5
90°-180°	5787.0	38.5
0°-180°	15031.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1194	1194	1194	1194	1194	
5°	1164	1248	1406	1590	1648	107
15°	872	1609	2712	3288	3391	243
25°	557	1824	3230	3372	3376	257
35°	376	1744	3042	3215	3341	235
45°	257	1390	2688	3080	3218	199
55°	184	883	2281	2650	2723	168
65°	146	469	1694	1905	1932	145
75°	108	288	930	1022	1026	113
85°	38	88	230	254	257	41
90°	6	17	46	23	23	8
95°	58	225	750	386	263	64
105°	206	312	1265	1920	1792	219
115°	366	445	1013	2021	2307	362
125°	509	571	922	1557	1837	452
135°	607	668	893	1257	1425	470
145°	704	749	881	1072	1156	441
155°	796	818	881	968	996	366
165°	859	870	881	916	928	242
175°	893	893	887	899	899	85
180°	893	893	893	893	893	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5
2.5°	1194.5	1194.5	1202.1	1206.0	1213.7	1217.5	1225.2	1232.9	1255.9	1259.8	1267.5
5°	1163.8	1179.1	1229.1	1248.3	1302.0	1375.0	1405.7	1455.6	1559.3	1590.0	1609.2
7.5°	1117.6	1152.2	1275.1	1305.8	1440.2	1632.3	1713.0	1820.5	1985.7	2066.3	2131.6
10°	1044.7	1117.6	1336.5	1409.5	1628.5	1920.4	2070.2	2220.0	2469.6	2580.9	2623.2
12.5°	964.1	1083.1	1401.9	1501.8	1816.7	2242.9	2423.5	2588.7	2872.9	3022.7	3045.7
15°	871.8	1033.1	1463.3	1609.2	2016.4	2511.8	2711.6	2915.1	3180.2	3287.6	3314.6
17.5°	791.2	994.8	1520.9	1674.5	2170.0	2753.8	2957.4	3126.4	3341.4	3414.4	3433.7
20°	691.3	933.3	1559.3	1759.0	2331.3	2930.4	3126.4	3256.9	3402.8	3449.0	3456.6
22.5°	618.3	868.0	1582.4	1789.7	2438.9	3038.0	3203.1	3306.9	3406.7	3422.1	3425.9
25°	556.9	795.1	1578.5	1824.3	2531.0	3103.3	3230.1	3306.9	3364.5	3372.1	3372.1
27.5°	499.3	714.3	1563.2	1832.0	2600.2	3118.6	3218.5	3272.3	3299.2	3314.6	3314.6
30°	449.3	637.6	1524.7	1816.7	2630.9	3103.3	3183.9	3210.9	3237.7	3260.8	3272.3
32.5°	411.0	564.5	1467.2	1786.0	2634.7	3064.9	3122.5	3137.9	3176.3	3230.1	3249.3
35°	376.4	491.6	1401.9	1743.7	2611.6	3003.4	3041.9	3057.2	3134.0	3214.7	3241.6
37.5°	341.9	437.9	1317.4	1670.7	2577.2	2930.4	2957.4	2984.2	3103.3	3199.3	3230.1
40°	307.3	391.8	1217.5	1590.0	2523.4	2842.2	2865.1	2907.4	3064.9	3176.3	3207.0
42.5°	280.3	353.4	1110.0	1505.5	2454.2	2742.3	2776.9	2838.3	3018.8	3137.9	3172.4
45°	257.4	314.9	994.8	1390.3	2365.9	2638.6	2688.5	2773.0	2965.0	3080.3	3111.0
47.5°	234.3	288.1	875.7	1271.3	2269.9	2534.9	2600.2	2696.1	2892.1	3003.4	3030.4
50°	215.1	261.1	756.6	1144.6	2166.2	2423.5	2500.3	2600.2	2799.9	2903.6	2938.2
52.5°	199.7	238.1	645.3	1017.8	2047.1	2308.3	2396.6	2500.3	2688.5	2788.4	2811.5
55°	184.4	218.9	549.2	883.3	1924.2	2185.4	2281.4	2381.2	2565.6	2650.1	2665.4
57.5°	176.6	203.6	468.6	756.6	1793.6	2047.1	2154.7	2246.8	2419.7	2484.9	2500.3
60°	165.1	192.1	407.1	649.0	1651.5	1916.5	2008.7	2100.9	2246.8	2300.6	2312.1
62.5°	153.6	184.4	361.0	545.4	1505.5	1762.9	1855.1	1939.6	2062.5	2100.9	2116.2
65°	145.9	176.6	326.5	468.6	1355.8	1601.6	1693.7	1766.8	1866.6	1905.0	1912.7
67.5°	138.3	169.0	299.6	403.3	1206.0	1440.2	1509.4	1578.5	1655.3	1693.7	1697.6
70°	126.7	161.3	276.6	357.2	1052.3	1255.9	1313.6	1386.5	1448.0	1467.2	1478.7
72.5°	119.1	149.8	261.1	322.6	894.9	1079.3	1133.1	1175.3	1229.1	1248.3	1248.3
75°	107.6	134.4	245.8	288.1	733.5	883.3	929.5	971.7	1014.0	1021.6	1010.1
77.5°	96.0	119.1	211.2	242.0	572.3	699.0	737.4	760.5	795.1	802.7	806.6
80°	80.6	103.7	165.1	188.2	414.8	514.6	541.6	560.8	591.5	591.5	599.1
82.5°	61.4	80.6	119.1	134.4	280.3	353.4	376.4	387.9	407.1	407.1	407.1
85°	38.4	49.9	76.8	88.4	169.0	215.1	230.4	234.3	249.6	253.5	253.5
87.5°	19.2	26.8	49.9	53.8	88.4	111.3	111.3	119.1	119.1	115.2	111.3
90°	6.0	10.8	15.6	16.8	26.4	39.1	45.5	40.5	30.3	22.8	22.8
92.5°	23.9	64.6	105.4	115.6	162.5	225.1	256.4	224.7	161.3	113.9	109.3
95°	57.6	132.1	206.7	225.3	400.0	633.0	749.5	668.8	507.5	386.4	372.7
97.5°	99.4	165.2	231.0	247.5	538.9	927.3	1121.6	1070.6	968.6	892.2	866.1
100°	131.8	191.5	251.1	266.0	589.3	1020.5	1236.1	1239.7	1247.2	1252.8	1221.7
102.5°	159.4	215.0	270.6	284.6	612.5	1049.8	1268.4	1333.3	1463.3	1560.8	1534.1
105°	206.1	253.2	300.3	312.1	629.7	1053.1	1264.8	1410.5	1701.8	1920.3	1905.9
107.5°	254.1	298.0	342.0	352.9	633.0	1006.3	1192.9	1396.1	1802.5	2107.3	2110.8
110°	286.4	326.1	365.8	375.7	628.1	964.7	1133.1	1360.2	1814.5	2155.2	2170.1

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	318.1	355.9	393.7	403.2	628.3	928.4	1078.5	1311.0	1775.9	2124.6	2147.5
115°	366.1	401.0	435.9	444.6	634.1	886.8	1013.2	1237.1	1685.0	2020.9	2052.7
117.5°	413.4	445.1	476.7	484.7	645.8	860.8	968.2	1170.4	1574.5	1877.7	1912.9
120°	441.0	470.8	500.6	508.0	655.4	852.0	950.3	1135.0	1504.3	1781.3	1815.5
122.5°	467.9	498.1	528.1	535.7	669.3	847.4	936.4	1102.7	1435.4	1684.8	1718.5
125°	509.3	536.7	564.2	571.0	687.9	843.6	921.5	1062.8	1345.3	1557.2	1588.3
127.5°	542.8	570.5	598.3	605.1	706.4	841.4	908.9	1030.2	1272.8	1454.8	1481.0
130°	560.9	590.7	620.5	627.9	720.0	842.7	904.2	1012.1	1228.1	1390.0	1414.3
132.5°	579.4	609.2	639.1	646.5	731.0	843.6	899.9	996.6	1189.9	1334.9	1356.6
135°	607.0	634.1	661.2	668.0	742.9	842.8	892.7	973.7	1135.7	1257.1	1275.8
137.5°	635.1	662.0	689.0	695.6	761.0	848.1	891.6	960.0	1096.9	1199.5	1214.8
140°	658.4	683.2	708.0	714.2	771.9	848.8	887.3	946.4	1064.7	1153.4	1167.7
142.5°	676.5	699.3	722.3	728.0	781.1	851.9	887.3	939.3	1043.1	1121.0	1133.3
145°	704.0	723.9	743.9	748.9	793.1	851.9	881.4	923.8	1008.8	1072.5	1081.8
147.5°	731.6	751.0	770.5	775.3	810.7	857.9	881.4	914.8	981.7	1031.8	1039.5
150°	749.5	767.1	784.7	789.1	819.9	860.9	881.4	909.6	966.0	1008.3	1014.6
152.5°	768.1	781.4	794.8	798.1	825.9	862.9	881.4	905.5	953.7	989.8	994.6
155°	795.6	805.5	815.4	817.8	839.1	867.3	881.4	900.6	938.9	967.6	970.7
157.5°	816.1	825.7	835.2	837.6	852.2	871.7	881.4	896.3	926.1	948.5	950.7
160°	829.9	837.3	844.8	846.6	858.2	873.7	881.4	894.2	919.7	938.9	940.1
162.5°	843.6	849.2	854.9	856.2	864.6	875.8	881.4	892.2	913.7	929.9	931.0
165°	858.6	863.7	868.7	870.0	873.7	878.9	881.4	889.2	904.6	916.1	917.4
167.5°	872.4	874.7	877.1	877.7	880.9	885.2	887.3	892.4	902.5	910.1	910.7
170°	881.4	883.7	886.2	886.7	886.9	887.2	887.3	892.4	902.5	910.1	910.1
172.5°	886.2	886.6	887.2	887.3	887.3	887.3	887.3	891.3	899.3	905.3	904.9
175°	892.7	892.7	892.7	892.7	890.9	888.5	887.3	889.8	895.0	898.7	898.7
177.5°	892.7	892.7	892.7	892.7	891.4	889.5	888.6	890.6	894.6	897.6	897.0
180°	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1194.5	1194.5
2.5°	1275.1	1267.5
5°	1640.0	1647.7
7.5°	2208.4	2204.6
10°	2746.1	2780.6
12.5°	3137.9	3145.6
15°	3376.0	3391.4
17.5°	3468.1	3472.0
20°	3472.0	3464.4
22.5°	3429.8	3422.1
25°	3379.9	3376.0
27.5°	3333.7	3337.6
30°	3314.6	3326.1
32.5°	3314.6	3333.7
35°	3322.2	3341.4
37.5°	3318.3	3341.4
40°	3303.0	3329.9
42.5°	3260.8	3280.0
45°	3195.5	3218.5
47.5°	3111.0	3126.4
50°	3003.4	3018.8
52.5°	2869.0	2872.9
55°	2707.7	2723.1
57.5°	2534.9	2538.7
60°	2342.8	2354.4
62.5°	2139.3	2139.3
65°	1924.2	1931.9
67.5°	1701.5	1720.7
70°	1474.8	1478.7
72.5°	1252.0	1252.0
75°	1021.6	1025.5
77.5°	802.7	802.7
80°	595.4	599.1
82.5°	411.0	418.6
85°	257.4	257.4
87.5°	119.1	107.6
90°	22.8	22.8
92.5°	91.2	73.1
95°	317.8	263.0
97.5°	761.6	657.3
100°	1097.4	973.1
102.5°	1427.6	1321.1
105°	1848.8	1791.5
107.5°	2124.5	2138.4
110°	2229.7	2289.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2239.2	2330.7
115°	2179.8	2306.8
117.5°	2053.8	2194.7
120°	1952.4	2089.3
122.5°	1853.6	1988.6
125°	1712.6	1837.0
127.5°	1585.9	1690.8
130°	1511.3	1608.2
132.5°	1443.4	1530.2
135°	1350.6	1425.4
137.5°	1276.1	1337.3
140°	1224.9	1282.2
142.5°	1182.7	1231.9
145°	1119.1	1156.4
147.5°	1070.4	1101.3
150°	1039.6	1064.7
152.5°	1013.5	1032.4
155°	983.3	995.8
157.5°	959.4	968.2
160°	945.3	950.3
162.5°	935.9	940.7
165°	922.5	927.5
167.5°	912.8	914.9
170°	910.1	910.1
172.5°	903.0	901.2
175°	898.7	898.7
177.5°	894.9	892.7
180°	892.7	892.7

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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	6.53	7.56	7.38	8.43	9.52	19.73	20.75	20.57	21.62	22.72
	3H	7.25	8.17	8.11	9.06	10.18	21.58	22.51	22.44	23.39	24.51
	4H	7.56	8.43	8.43	9.32	10.45	22.24	23.11	23.11	24.00	25.13
	6H	7.82	8.62	8.70	9.52	10.66	22.68	23.49	23.57	24.38	25.53
	8H	7.89	8.66	8.78	9.57	10.71	22.81	23.58	23.70	24.49	25.64
	12H	7.91	8.65	8.81	9.55	10.72	22.89	23.62	23.79	24.53	25.70
4H	2H	13.78	14.65	14.65	15.54	16.67	20.02	20.89	20.90	21.78	22.91
	3H	15.36	16.09	16.25	17.01	18.16	22.08	22.82	22.97	23.74	24.88
	4H	15.46	16.13	16.36	17.04	18.22	22.86	23.53	23.76	24.45	25.62
	6H	15.48	16.06	16.40	17.00	18.17	23.42	24.00	24.33	24.94	26.11
	8H	15.46	16.00	16.38	16.94	18.12	23.59	24.13	24.50	25.06	26.25
	12H	15.43	15.92	16.36	16.87	18.06	23.69	24.18	24.63	25.13	26.32
8H	4H	16.92	17.47	17.84	18.40	19.59	22.94	23.48	23.85	24.41	25.60
	6H	17.17	17.62	18.12	18.60	19.78	23.58	24.03	24.52	25.00	26.19
	8H	17.19	17.59	18.15	18.56	19.76	23.80	24.20	24.76	25.17	26.37
	12H	17.17	17.52	18.13	18.48	19.73	23.96	24.31	24.92	25.27	26.52
12H	4H	17.08	17.57	18.01	18.52	19.71	22.90	23.39	23.84	24.34	25.53
	6H	17.44	17.83	18.39	18.80	20.00	23.56	23.96	24.52	24.93	26.13
	8H	17.51	17.86	18.47	18.82	20.08	23.80	24.16	24.76	25.12	26.37