

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: P936916

Luminaire Tested: SQ4-FB-050U-125D-835-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

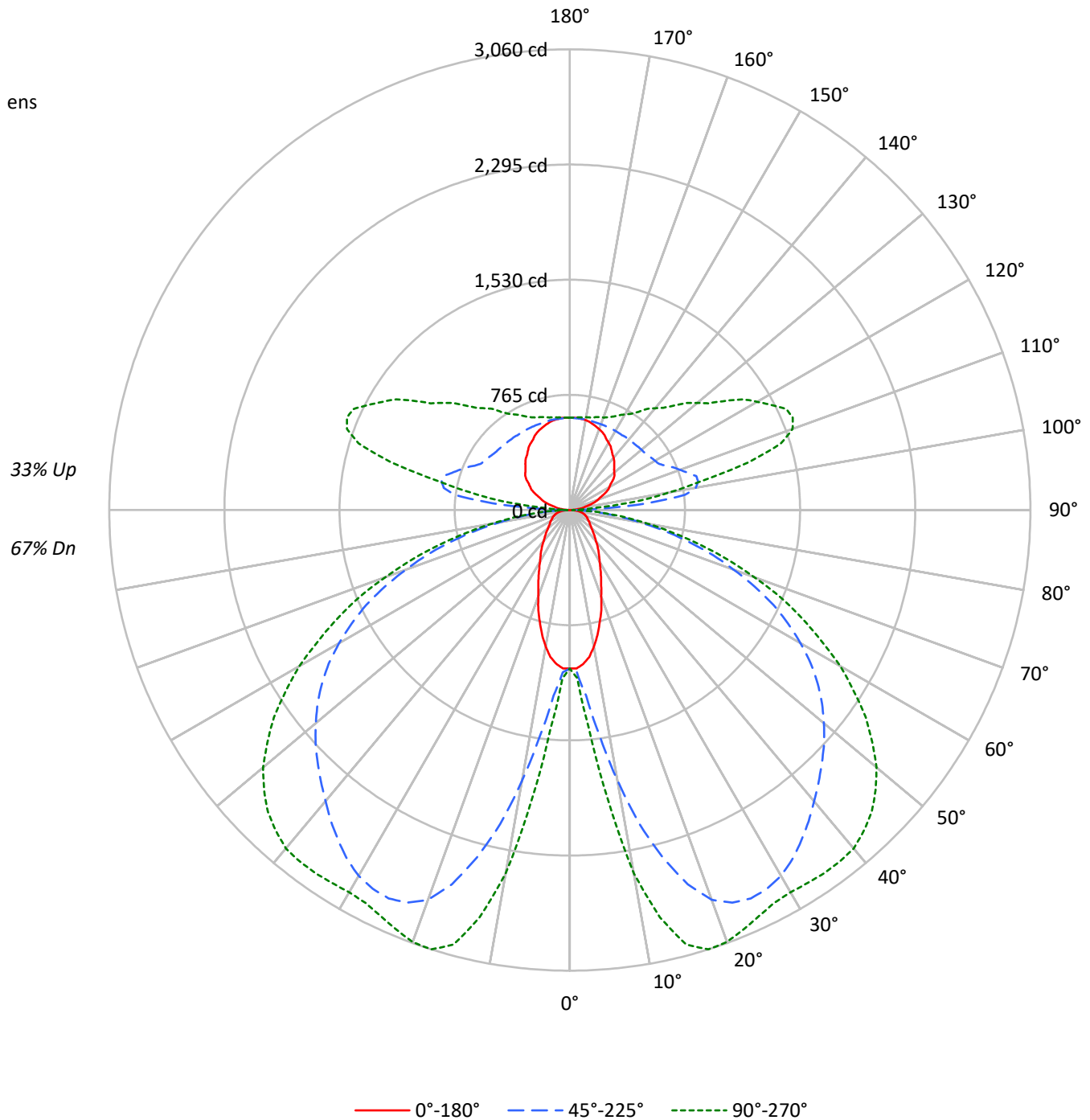
Test Method: LM-79-2019  
Report Number: P936916  
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-125D-835-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12127.0 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 112  
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4884	4884	4884
5°	4771	5645	6564
10°	4328	8228	10883
15°	3678	10750	13141
20°	2994	12457	13392
25°	2498	13036	13121
30°	2106	13118	13096
35°	1862	12900	13434
40°	1623	12617	13785
45°	1470	12410	13838
50°	1348	12223	13609
55°	1291	11950	13006
60°	1322	11425	12054
65°	1375	10628	10745
70°	1465	9268	9077
75°	1624	7557	7084
80°	1774	5241	4773
85°	1574	2781	2443

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13838 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.2	1.1
10°-20°	603.5	5.0
20°-30°	1055.6	8.7
30°-40°	1358.8	11.2
40°-50°	1517.7	12.5
50°-60°	1453.6	12.0
60°-70°	1152.0	9.5
70°-80°	677.4	5.6
80°-90°	190.5	1.6
90°-100°	299.4	2.5
100°-110°	787.1	6.5
110°-120°	816.2	6.7
120°-130°	654.7	5.4
130°-140°	513.7	4.2
140°-150°	394.3	3.3
150°-160°	283.9	2.3
160°-170°	173.7	1.4
170°-180°	58.7	0.5
0°-30°	1795.2	14.8
0°-40°	3154.0	26.0
0°-60°	6125.4	50.5
0°-90°	8145.4	67.2
90°-120°	1902.7	15.7
90°-150°	3465.3	28.6
90°-180°	3982.0	32.8
0°-180°	12127.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1026	1100	1239	1401	1452	95
15°	768	1418	2390	2897	2989	214
25°	491	1608	2846	2972	2975	226
35°	332	1537	2681	2833	2945	207
45°	227	1225	2369	2714	2836	175
55°	162	778	2010	2335	2400	148
65°	129	413	1493	1679	1702	127
75°	95	254	819	900	904	99
85°	34	78	203	223	227	36
90°	4	12	31	16	16	6
95°	40	155	516	266	181	44
105°	142	215	870	1321	1232	150
115°	252	306	697	1390	1587	249
125°	350	393	634	1071	1264	311
135°	418	460	614	865	981	323
145°	484	515	606	738	796	303
155°	547	563	606	666	685	252
165°	591	598	606	630	638	167
175°	614	614	610	618	618	58
180°	614	614	614	614	614	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6
2.5°	1052.6	1052.6	1059.4	1062.8	1069.5	1072.9	1079.7	1086.5	1106.8	1110.2	1116.9
5°	1025.5	1039.1	1083.1	1100.0	1147.4	1211.7	1238.8	1282.8	1374.1	1401.2	1418.1
7.5°	984.9	1015.4	1123.7	1150.8	1269.2	1438.5	1509.5	1604.3	1749.8	1820.9	1878.5
10°	920.6	984.9	1177.8	1242.1	1435.1	1692.3	1824.3	1956.3	2176.3	2274.5	2311.7
12.5°	849.5	954.5	1235.4	1323.4	1600.9	1976.6	2135.7	2281.2	2531.7	2663.7	2684.0
15°	768.3	910.5	1289.5	1418.1	1776.9	2213.5	2389.5	2568.9	2802.5	2897.2	2920.9
17.5°	697.2	876.6	1340.3	1475.7	1912.3	2426.8	2606.1	2755.1	2944.6	3008.9	3025.8
20°	609.2	822.5	1374.1	1550.1	2054.5	2582.5	2755.1	2870.1	2998.8	3039.4	3046.1
22.5°	544.9	764.9	1394.5	1577.2	2149.2	2677.2	2822.8	2914.1	3002.1	3015.7	3019.1
25°	490.8	700.6	1391.1	1607.7	2230.5	2734.8	2846.5	2914.1	2964.9	2971.7	2971.7
27.5°	440.0	629.5	1377.5	1614.5	2291.4	2748.3	2836.3	2883.7	2907.4	2920.9	2920.9
30°	396.0	561.8	1343.7	1600.9	2318.5	2734.8	2805.8	2829.5	2853.2	2873.5	2883.7
32.5°	362.2	497.5	1292.9	1573.8	2321.8	2700.9	2751.7	2765.2	2799.1	2846.5	2863.4
35°	331.7	433.2	1235.4	1536.6	2301.5	2646.8	2680.6	2694.1	2761.8	2832.9	2856.6
37.5°	301.2	385.8	1160.9	1472.3	2271.1	2582.5	2606.1	2629.8	2734.8	2819.4	2846.5
40°	270.8	345.2	1072.9	1401.2	2223.7	2504.6	2524.9	2562.1	2700.9	2799.1	2826.1
42.5°	247.1	311.4	978.2	1326.8	2162.8	2416.6	2447.1	2501.2	2660.3	2765.2	2795.7
45°	226.8	277.5	876.6	1225.2	2084.9	2325.2	2369.2	2443.7	2612.9	2714.5	2741.5
47.5°	206.5	253.8	771.7	1120.3	2000.3	2233.8	2291.4	2376.0	2548.6	2646.8	2670.5
50°	189.5	230.2	666.8	1008.6	1908.9	2135.7	2203.4	2291.4	2467.4	2558.8	2589.2
52.5°	176.0	209.8	568.6	896.9	1804.0	2034.1	2112.0	2203.4	2369.2	2457.2	2477.5
55°	162.5	192.9	484.0	778.5	1695.7	1925.8	2010.5	2098.5	2260.9	2335.4	2348.9
57.5°	155.7	179.4	412.9	666.8	1580.6	1804.0	1898.8	1980.0	2132.3	2189.8	2203.4
60°	145.5	169.2	358.8	572.0	1455.4	1688.9	1770.1	1851.4	1980.0	2027.4	2037.5
62.5°	135.4	162.5	318.2	480.6	1326.8	1553.5	1634.8	1709.2	1817.5	1851.4	1864.9
65°	128.6	155.7	287.7	412.9	1194.8	1411.4	1492.6	1556.9	1644.9	1678.8	1685.5
67.5°	121.8	148.9	264.0	355.4	1062.8	1269.2	1330.1	1391.1	1458.8	1492.6	1496.0
70°	111.7	142.2	243.7	314.8	927.4	1106.8	1157.5	1221.8	1276.0	1292.9	1303.1
72.5°	104.9	132.0	230.2	284.3	788.6	951.1	998.5	1035.7	1083.1	1100.0	1100.0
75°	94.8	118.5	216.6	253.8	646.5	778.5	819.1	856.3	893.5	900.3	890.2
77.5°	84.6	104.9	186.2	213.2	504.3	616.0	649.8	670.2	700.6	707.4	710.8
80°	71.1	91.4	145.5	165.8	365.5	453.5	477.2	494.2	521.2	521.2	528.0
82.5°	54.2	71.1	104.9	118.5	247.1	311.4	331.7	341.8	358.8	358.8	358.8
85°	33.8	44.0	67.7	77.8	148.9	189.5	203.1	206.5	220.0	223.4	223.4
87.5°	16.9	23.7	44.0	47.4	77.8	98.2	98.2	104.9	104.9	101.5	98.2
90°	4.1	7.4	10.7	11.5	18.1	26.9	31.3	27.8	20.9	15.7	15.7
92.5°	16.5	44.5	72.6	79.6	111.9	154.9	176.4	154.6	111.0	78.3	75.2
95°	39.6	90.9	142.2	155.0	275.2	435.5	515.7	460.2	349.2	265.9	256.5
97.5°	68.4	113.6	158.9	170.2	370.7	638.0	771.7	736.6	666.4	613.8	595.8
100°	90.7	131.7	172.7	183.0	405.5	702.1	850.4	853.0	858.1	861.9	840.5
102.5°	109.7	148.0	186.2	195.8	421.4	722.3	872.7	917.4	1006.8	1073.8	1055.5
105°	141.8	174.2	206.7	214.8	433.3	724.6	870.2	970.4	1170.9	1321.2	1311.3
107.5°	174.8	205.0	235.2	242.8	435.4	692.3	820.7	960.5	1240.1	1449.8	1452.2
110°	197.0	224.3	251.7	258.5	432.2	663.7	779.5	935.8	1248.3	1482.7	1493.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	218.9	244.9	270.9	277.4	432.3	638.8	742.0	901.9	1221.8	1461.7	1477.5
115°	251.9	275.9	299.9	305.9	436.3	610.2	697.1	851.2	1159.3	1390.4	1412.2
117.5°	284.4	306.2	328.0	333.5	444.4	592.2	666.1	805.2	1083.3	1291.9	1316.1
120°	303.4	323.9	344.5	349.6	451.0	586.2	653.8	780.8	1034.9	1225.5	1249.0
122.5°	321.9	342.6	363.3	368.5	460.4	583.0	644.3	758.7	987.6	1159.2	1182.4
125°	350.4	369.2	388.1	392.8	473.2	580.4	634.0	731.2	925.6	1071.4	1092.8
127.5°	373.5	392.5	411.5	416.3	486.0	578.9	625.3	708.8	875.7	1000.9	1018.9
130°	385.8	406.3	426.9	432.0	495.3	579.8	622.0	696.3	844.9	956.3	973.0
132.5°	398.6	419.1	439.7	444.8	502.9	580.4	619.2	685.7	818.7	918.4	933.3
135°	417.6	436.3	454.9	459.6	511.1	579.8	614.2	669.9	781.3	864.8	877.7
137.5°	437.0	455.5	474.0	478.6	523.5	583.4	613.4	660.5	754.7	825.3	835.8
140°	453.0	470.1	487.1	491.4	531.1	584.0	610.5	651.2	732.5	793.5	803.3
142.5°	465.4	481.1	496.9	500.8	537.4	586.1	610.5	646.2	717.7	771.3	779.8
145°	484.4	498.1	511.9	515.3	545.7	586.2	606.4	635.6	694.1	737.9	744.3
147.5°	503.3	516.7	530.1	533.4	557.7	590.2	606.4	629.4	675.3	709.8	715.1
150°	515.7	527.8	539.9	542.9	564.1	592.3	606.4	625.8	664.7	693.8	698.1
152.5°	528.5	537.7	546.8	549.1	568.2	593.7	606.4	623.0	656.1	681.0	684.3
155°	547.4	554.2	561.0	562.7	577.3	596.7	606.4	619.6	645.9	665.7	667.9
157.5°	561.4	568.0	574.6	576.3	586.3	599.7	606.4	616.6	637.1	652.5	654.0
160°	570.9	576.1	581.2	582.5	590.5	601.1	606.4	615.2	632.7	645.9	646.8
162.5°	580.4	584.3	588.1	589.1	594.9	602.6	606.4	613.8	628.7	639.8	640.6
165°	590.7	594.2	597.6	598.5	601.1	604.6	606.4	611.7	622.3	630.3	631.2
167.5°	600.2	601.8	603.5	603.9	606.1	609.0	610.5	614.0	621.0	626.2	626.6
170°	606.4	608.0	609.7	610.1	610.2	610.4	610.5	614.0	621.0	626.2	626.2
172.5°	609.7	610.1	610.4	610.5	610.5	610.5	610.5	613.3	618.8	622.9	622.6
175°	614.2	614.2	614.2	614.2	613.0	611.3	610.5	612.2	615.7	618.3	618.3
177.5°	614.2	614.2	614.2	614.2	613.2	611.9	611.3	612.7	615.4	617.5	617.1
180°	614.2	614.2	614.2	614.2	614.2	614.2	614.2	614.2	614.2	614.2	614.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1052.6	1052.6
2.5°	1123.7	1116.9
5°	1445.2	1452.0
7.5°	1946.1	1942.8
10°	2420.0	2450.5
12.5°	2765.2	2772.0
15°	2975.1	2988.6
17.5°	3056.3	3059.7
20°	3059.7	3052.9
22.5°	3022.5	3015.7
25°	2978.5	2975.1
27.5°	2937.8	2941.2
30°	2920.9	2931.1
32.5°	2920.9	2937.8
35°	2927.7	2944.6
37.5°	2924.3	2944.6
40°	2910.8	2934.5
42.5°	2873.5	2890.5
45°	2816.0	2836.3
47.5°	2741.5	2755.1
50°	2646.8	2660.3
52.5°	2528.3	2531.7
55°	2386.1	2399.7
57.5°	2233.8	2237.2
60°	2064.6	2074.8
62.5°	1885.2	1885.2
65°	1695.7	1702.5
67.5°	1499.4	1516.3
70°	1299.7	1303.1
72.5°	1103.4	1103.4
75°	900.3	903.7
77.5°	707.4	707.4
80°	524.6	528.0
82.5°	362.2	368.9
85°	226.8	226.8
87.5°	104.9	94.8
90°	15.7	15.7
92.5°	62.7	50.3
95°	218.7	181.0
97.5°	524.0	452.2
100°	755.0	669.4
102.5°	982.2	908.9
105°	1271.9	1232.5
107.5°	1461.7	1471.2
110°	1534.0	1575.1





TEST NUMBER: P936916

CATALOG NUMBER: SQ4-FB-050U-125D-835-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1540.5	1603.5
115°	1499.6	1587.0
117.5°	1413.1	1510.0
120°	1343.2	1437.4
122.5°	1275.3	1368.2
125°	1178.3	1263.9
127.5°	1091.1	1163.3
130°	1039.7	1106.4
132.5°	993.1	1052.8
135°	929.2	980.7
137.5°	878.0	920.1
140°	842.7	882.1
142.5°	813.6	847.5
145°	770.0	795.6
147.5°	736.4	757.7
150°	715.3	732.5
152.5°	697.3	710.3
155°	676.5	685.1
157.5°	660.1	666.1
160°	650.3	653.8
162.5°	643.9	647.2
165°	634.6	638.1
167.5°	628.0	629.5
170°	626.2	626.2
172.5°	621.3	620.0
175°	618.3	618.3
177.5°	615.7	614.2
180°	614.2	614.2



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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	7.94	9.04	8.73	9.85	10.85	21.12	22.22	21.91	23.03	24.03
	3H	8.66	9.65	9.46	10.48	11.51	22.98	23.97	23.78	24.79	25.82
	4H	8.97	9.91	9.79	10.74	11.78	23.63	24.57	24.45	25.40	26.44
	6H	9.24	10.10	10.07	10.94	11.99	24.08	24.94	24.91	25.78	26.83
	8H	9.31	10.14	10.15	11.00	12.05	24.20	25.03	25.04	25.89	26.94
	12H	9.34	10.12	10.18	10.98	12.06	24.28	25.07	25.12	25.92	27.00
4H	2H	15.19	16.12	16.01	16.95	17.99	21.42	22.36	22.24	23.19	24.23
	3H	16.77	17.56	17.61	18.42	19.48	23.49	24.28	24.32	25.14	26.20
	4H	16.88	17.60	17.73	18.46	19.54	24.27	24.98	25.11	25.85	26.93
	6H	16.90	17.53	17.77	18.41	19.50	24.82	25.44	25.68	26.33	27.41
	8H	16.89	17.47	17.75	18.35	19.45	24.99	25.57	25.85	26.45	27.55
	12H	16.86	17.38	17.74	18.28	19.39	25.09	25.62	25.98	26.52	27.63
8H	4H	18.34	18.93	19.21	19.81	20.91	24.35	24.93	25.21	25.81	26.91
	6H	18.60	19.08	19.49	20.00	21.10	24.99	25.47	25.88	26.40	27.50
	8H	18.62	19.05	19.52	19.97	21.08	25.21	25.64	26.12	26.56	27.67
	12H	18.60	18.98	19.51	19.89	21.06	25.37	25.75	26.28	26.66	27.82
12H	4H	18.50	19.03	19.39	19.93	21.03	24.31	24.84	25.20	25.74	26.85
	6H	18.86	19.29	19.76	20.21	21.32	24.97	25.40	25.88	26.32	27.44
	8H	18.94	19.32	19.85	20.23	21.40	25.22	25.59	26.12	26.50	27.67