

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: P936955

Luminaire Tested: SQ4-FB-050U-125D-93050-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936955
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-93050-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

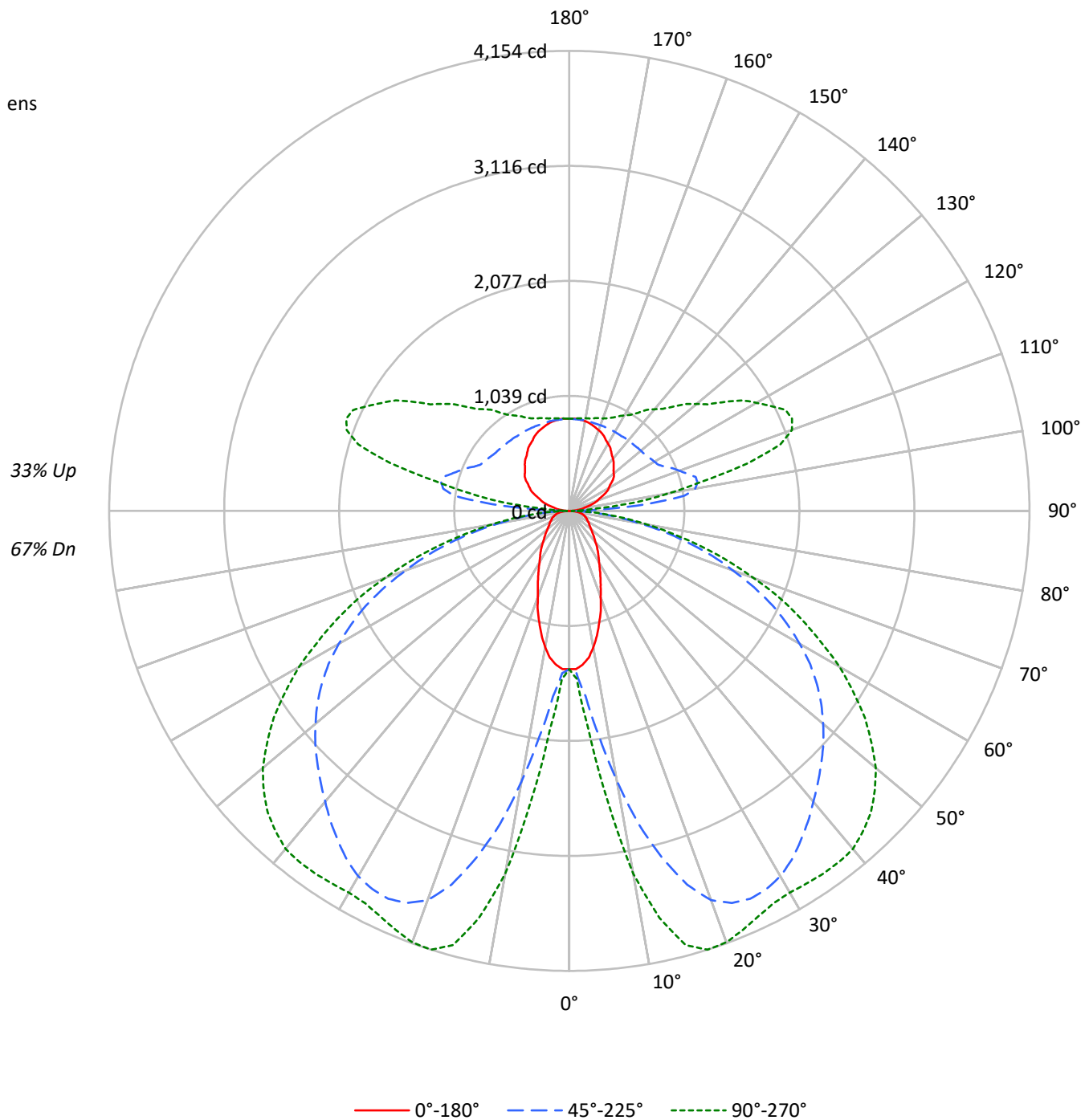
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16464.9 lumens
Efficiency: N/A
Efficacy: 98.0 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									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	50	30	10	0														
RCR																																						
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67																				
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55																				
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45																				
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37																				
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31																				
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26																				
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23																				
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20																				
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17																				
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15																				
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4421	4421	4421
5°	4320	5110	5942
10°	3920	7451	9850
15°	3333	9737	11894
20°	2714	11286	12122
25°	2265	11814	11876
30°	1911	11891	11853
35°	1690	11697	12160
40°	1474	11443	12477
45°	1335	11259	12525
50°	1226	11094	12318
55°	1176	10850	11772
60°	1205	10378	10910
65°	1255	9659	9725
70°	1340	8429	8216
75°	1491	6879	6411
80°	1641	4776	4320
85°	1491	2539	2211

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12525 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.9	1.1
10°-20°	819.3	5.0
20°-30°	1433.1	8.7
30°-40°	1844.8	11.2
40°-50°	2060.6	12.5
50°-60°	1973.6	12.0
60°-70°	1564.1	9.5
70°-80°	919.7	5.6
80°-90°	258.7	1.6
90°-100°	406.5	2.5
100°-110°	1068.7	6.5
110°-120°	1108.1	6.7
120°-130°	888.9	5.4
130°-140°	697.4	4.2
140°-150°	535.3	3.3
150°-160°	385.5	2.3
160°-170°	235.9	1.4
170°-180°	79.7	0.5
0°-30°	2437.3	14.8
0°-40°	4282.1	26.0
0°-60°	8316.3	50.5
0°-90°	11058.8	67.2
90°-120°	2583.3	15.7
90°-150°	4704.9	28.6
90°-180°	5406.0	32.8
0°-180°	16464.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1429	1429	1429	1429	1429	
5°	1392	1493	1682	1902	1971	129
15°	1043	1925	3244	3934	4058	290
25°	666	2183	3865	4035	4039	307
35°	450	2086	3639	3846	3998	281
45°	308	1664	3217	3685	3851	238
55°	221	1057	2730	3171	3258	201
65°	175	561	2026	2279	2311	173
75°	129	345	1112	1222	1227	135
85°	46	106	276	303	308	49
90°	6	16	42	21	21	8
95°	54	210	700	361	246	60
105°	192	292	1182	1794	1674	204
115°	342	415	946	1888	2155	338
125°	476	533	861	1455	1716	422
135°	567	624	834	1174	1332	439
145°	658	700	823	1002	1080	412
155°	743	764	823	904	930	342
165°	802	813	823	856	866	226
175°	834	834	829	840	840	79
180°	834	834	834	834	834	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2	1429.2
2.5°	1429.2	1429.2	1438.3	1442.9	1452.1	1456.7	1465.9	1475.1	1502.7	1507.3	1516.4
5°	1392.3	1410.7	1470.4	1493.4	1557.8	1645.1	1681.9	1741.6	1865.6	1902.5	1925.4
7.5°	1337.2	1378.6	1525.6	1562.4	1723.2	1953.0	2049.5	2178.2	2375.8	2472.3	2550.4
10°	1249.9	1337.2	1599.1	1686.4	1948.4	2297.6	2476.8	2656.0	2954.7	3088.0	3138.6
12.5°	1153.4	1295.8	1677.3	1796.7	2173.6	2683.6	2899.6	3097.2	3437.3	3616.5	3644.0
15°	1043.1	1236.1	1750.8	1925.4	2412.5	3005.3	3244.2	3487.8	3804.8	3933.6	3965.7
17.5°	946.6	1190.2	1819.7	2003.5	2596.3	3294.8	3538.4	3740.5	3997.8	4085.2	4108.2
20°	827.1	1116.6	1865.6	2104.6	2789.3	3506.1	3740.5	3896.7	4071.4	4126.5	4135.7
22.5°	739.8	1038.5	1893.2	2141.3	2918.0	3634.9	3832.5	3956.5	4075.9	4094.3	4098.9
25°	666.3	951.2	1888.6	2182.7	3028.2	3713.0	3864.6	3956.5	4025.4	4034.6	4034.6
27.5°	597.4	854.7	1870.2	2191.9	3110.9	3731.3	3850.8	3915.1	3947.3	3965.7	3965.7
30°	537.7	762.8	1824.3	2173.6	3147.7	3713.0	3809.5	3841.6	3873.8	3901.3	3915.1
32.5°	491.7	675.5	1755.4	2136.8	3152.3	3667.0	3736.0	3754.3	3800.2	3864.6	3887.6
35°	450.3	588.2	1677.3	2086.2	3124.8	3593.5	3639.4	3657.8	3749.7	3846.2	3878.3
37.5°	409.0	523.8	1576.2	1999.0	3083.4	3506.1	3538.4	3570.5	3713.0	3827.8	3864.6
40°	367.6	468.7	1456.7	1902.5	3019.1	3400.5	3428.0	3478.6	3667.0	3800.2	3837.0
42.5°	335.5	422.8	1328.1	1801.4	2936.3	3281.0	3322.4	3395.9	3611.9	3754.3	3795.7
45°	307.8	376.8	1190.2	1663.5	2830.6	3156.9	3216.7	3317.8	3547.5	3685.4	3722.1
47.5°	280.3	344.7	1047.7	1521.0	2715.8	3032.8	3110.9	3225.8	3460.2	3593.5	3625.6
50°	257.3	312.5	905.3	1369.4	2591.7	2899.6	2991.5	3110.9	3349.9	3474.0	3515.4
52.5°	239.0	284.9	772.0	1217.7	2449.3	2761.7	2867.5	2991.5	3216.7	3336.2	3363.7
55°	220.6	262.0	657.1	1056.9	2302.2	2614.6	2729.6	2849.1	3069.6	3170.7	3189.1
57.5°	211.4	243.6	560.7	905.3	2146.0	2449.3	2577.9	2688.2	2895.0	2973.1	2991.5
60°	197.6	229.7	487.1	776.6	1976.0	2293.0	2403.3	2513.6	2688.2	2752.5	2766.4
62.5°	183.8	220.6	431.9	652.5	1801.4	2109.2	2219.5	2320.6	2467.6	2513.6	2532.0
65°	174.6	211.4	390.6	560.7	1622.1	1916.2	2026.5	2113.8	2233.3	2279.2	2288.4
67.5°	165.5	202.2	358.4	482.5	1442.9	1723.2	1805.9	1888.6	1980.6	2026.5	2031.1
70°	151.6	193.0	330.8	427.3	1259.1	1502.7	1571.5	1658.9	1732.4	1755.4	1769.1
72.5°	142.5	179.2	312.5	386.0	1070.7	1291.3	1355.6	1406.2	1470.4	1493.4	1493.4
75°	128.6	160.8	294.1	344.7	877.6	1056.9	1112.1	1162.6	1213.1	1222.3	1208.6
77.5°	114.9	142.5	252.7	289.5	684.7	836.4	882.3	909.9	951.2	960.4	965.0
80°	96.5	124.1	197.6	225.2	496.3	615.8	647.9	670.9	707.7	707.7	716.9
82.5°	73.5	96.5	142.5	160.8	335.5	422.8	450.3	464.1	487.1	487.1	487.1
85°	46.0	59.7	91.9	105.7	202.2	257.3	275.7	280.3	298.7	303.3	303.3
87.5°	23.0	32.1	59.7	64.4	105.7	133.2	133.2	142.5	142.5	137.9	133.2
90°	5.6	10.0	14.6	15.7	24.6	36.6	42.5	37.8	28.3	21.3	21.3
92.5°	22.4	60.4	98.5	108.0	151.8	210.3	239.5	209.9	150.7	106.4	102.1
95°	53.8	123.4	193.1	210.4	373.7	591.3	700.1	624.7	474.0	361.0	348.1
97.5°	92.9	154.3	215.8	231.2	503.4	866.2	1047.7	1000.1	904.8	833.4	809.0
100°	123.1	178.9	234.5	248.5	550.5	953.2	1154.6	1158.1	1165.0	1170.3	1141.2
102.5°	148.9	200.9	252.8	265.8	572.2	980.7	1184.9	1245.5	1366.9	1457.9	1433.1
105°	192.5	236.5	280.5	291.6	588.2	983.7	1181.5	1317.6	1589.6	1793.8	1780.4
107.5°	237.3	278.3	319.4	329.7	591.3	940.0	1114.3	1304.2	1683.8	1968.5	1971.7
110°	267.6	304.6	341.7	350.9	586.7	901.2	1058.4	1270.6	1694.9	2013.2	2027.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	297.2	332.5	367.8	376.6	586.9	867.2	1007.4	1224.6	1658.9	1984.7	2006.0
115°	342.0	374.6	407.1	415.3	592.3	828.4	946.4	1155.6	1574.0	1887.8	1917.5
117.5°	386.1	415.7	445.3	452.8	603.3	804.1	904.4	1093.3	1470.8	1754.0	1786.9
120°	411.9	439.8	467.6	474.6	612.3	795.9	887.7	1060.2	1405.2	1664.0	1695.9
122.5°	437.1	465.3	493.3	500.4	625.2	791.6	874.7	1030.1	1340.8	1573.8	1605.3
125°	475.8	501.4	527.0	533.4	642.6	788.0	860.8	992.8	1256.6	1454.6	1483.6
127.5°	507.1	533.0	558.8	565.3	659.9	786.0	849.0	962.4	1188.9	1358.9	1383.4
130°	523.9	551.8	579.6	586.5	672.5	787.2	844.6	945.4	1147.2	1298.5	1321.1
132.5°	541.2	569.1	597.0	603.9	682.9	788.0	840.6	931.0	1111.5	1246.9	1267.2
135°	567.0	592.3	617.7	624.0	694.0	787.3	833.9	909.6	1060.8	1174.3	1191.7
137.5°	593.2	618.4	643.6	649.8	710.8	792.2	832.8	896.7	1024.6	1120.5	1134.8
140°	615.1	638.2	661.3	667.1	721.1	792.9	828.9	884.1	994.6	1077.4	1090.8
142.5°	631.9	653.3	674.7	680.0	729.7	795.8	828.9	877.4	974.4	1047.2	1058.7
145°	657.6	676.2	694.9	699.6	740.9	795.8	823.3	863.0	942.4	1001.8	1010.5
147.5°	683.4	701.5	719.7	724.2	757.3	801.3	823.3	854.6	917.0	963.8	971.1
150°	700.1	716.5	733.0	737.1	765.9	804.1	823.3	849.7	902.4	941.9	947.8
152.5°	717.5	729.9	742.4	745.5	771.5	806.0	823.3	845.9	890.9	924.6	929.1
155°	743.2	752.5	761.7	764.0	783.8	810.1	823.3	841.3	877.0	903.9	906.8
157.5°	762.3	771.3	780.2	782.4	796.1	814.3	823.3	837.3	865.1	886.0	888.1
160°	775.2	782.1	789.1	790.8	801.7	816.1	823.3	835.3	859.1	877.0	878.2
162.5°	788.0	793.3	798.5	799.8	807.7	818.1	823.3	833.4	853.5	868.6	869.7
165°	802.1	806.8	811.5	812.7	816.2	821.0	823.3	830.6	845.0	855.7	856.9
167.5°	814.9	817.1	819.4	819.9	822.9	826.9	828.9	833.6	843.1	850.1	850.7
170°	823.3	825.5	827.8	828.3	828.5	828.8	828.9	833.6	843.1	850.1	850.1
172.5°	827.8	828.2	828.8	828.9	828.9	828.9	828.9	832.6	840.1	845.7	845.2
175°	833.9	833.9	833.9	833.9	832.2	829.9	828.9	831.2	836.0	839.5	839.5
177.5°	833.9	833.9	833.9	833.9	832.7	830.9	830.0	831.9	835.6	838.5	837.9
180°	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9	833.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1429.2	1429.2
2.5°	1525.6	1516.4
5°	1962.2	1971.4
7.5°	2642.3	2637.6
10°	3285.6	3326.9
12.5°	3754.3	3763.5
15°	4039.2	4057.6
17.5°	4149.5	4154.1
20°	4154.1	4144.9
22.5°	4103.5	4094.3
25°	4043.8	4039.2
27.5°	3988.7	3993.3
30°	3965.7	3979.4
32.5°	3965.7	3988.7
35°	3974.8	3997.8
37.5°	3970.3	3997.8
40°	3951.9	3984.1
42.5°	3901.3	3924.3
45°	3823.2	3850.8
47.5°	3722.1	3740.5
50°	3593.5	3611.9
52.5°	3432.6	3437.3
55°	3239.7	3258.0
57.5°	3032.8	3037.4
60°	2803.1	2816.9
62.5°	2559.5	2559.5
65°	2302.2	2311.4
67.5°	2035.7	2058.7
70°	1764.6	1769.1
72.5°	1498.0	1498.0
75°	1222.3	1226.9
77.5°	960.4	960.4
80°	712.3	716.9
82.5°	491.7	500.9
85°	307.8	307.8
87.5°	142.5	128.6
90°	21.3	21.3
92.5°	85.2	68.2
95°	296.9	245.7
97.5°	711.5	614.0
100°	1025.1	909.0
102.5°	1333.6	1234.1
105°	1727.0	1673.5
107.5°	1984.6	1997.5
110°	2082.8	2138.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2091.6	2177.2
115°	2036.2	2154.8
117.5°	1918.5	2050.1
120°	1823.8	1951.6
122.5°	1731.5	1857.6
125°	1599.8	1716.0
127.5°	1481.4	1579.4
130°	1411.7	1502.2
132.5°	1348.3	1429.4
135°	1261.6	1331.5
137.5°	1192.0	1249.2
140°	1144.2	1197.7
142.5°	1104.7	1150.7
145°	1045.4	1080.2
147.5°	999.8	1028.7
150°	971.1	994.6
152.5°	946.7	964.4
155°	918.6	930.2
157.5°	896.2	904.4
160°	883.0	887.7
162.5°	874.2	878.7
165°	861.7	866.4
167.5°	852.7	854.7
170°	850.1	850.1
172.5°	843.5	841.8
175°	839.5	839.5
177.5°	835.9	833.9
180°	833.9	833.9



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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	7.60	8.70	8.39	9.51	10.51	20.79	21.89	21.58	22.70	23.70
	3H	8.32	9.31	9.12	10.14	11.17	22.65	23.64	23.45	24.47	25.50
	4H	8.63	9.57	9.45	10.40	11.44	23.31	24.25	24.13	25.08	26.12
	6H	8.90	9.76	9.72	10.60	11.65	23.76	24.63	24.59	25.47	26.52
	8H	8.97	9.80	9.81	10.65	11.71	23.89	24.72	24.73	25.58	26.63
	12H	9.00	9.78	9.84	10.64	11.72	23.97	24.76	24.81	25.61	26.69
4H	2H	14.85	15.79	15.67	16.62	17.66	21.09	22.03	21.91	22.86	23.90
	3H	16.44	17.23	17.27	18.09	19.15	23.17	23.95	24.00	24.82	25.87
	4H	16.55	17.26	17.39	18.12	19.21	23.95	24.66	24.79	25.53	26.61
	6H	16.57	17.19	17.43	18.08	19.16	24.51	25.13	25.37	26.01	27.10
	8H	16.55	17.13	17.42	18.02	19.12	24.68	25.26	25.54	26.14	27.24
	12H	16.52	17.05	17.41	17.95	19.05	24.78	25.31	25.67	26.21	27.32
8H	4H	18.01	18.60	18.88	19.48	20.58	24.03	24.61	24.89	25.49	26.59
	6H	18.27	18.75	19.16	19.67	20.77	24.67	25.16	25.57	26.08	27.18
	8H	18.29	18.72	19.19	19.63	20.75	24.90	25.33	25.80	26.24	27.36
	12H	18.27	18.65	19.18	19.56	20.72	25.06	25.44	25.97	26.35	27.51
12H	4H	18.17	18.70	19.06	19.60	20.70	23.99	24.52	24.88	25.42	26.53
	6H	18.53	18.96	19.43	19.88	20.99	24.66	25.09	25.56	26.01	27.12
	8H	18.61	18.99	19.52	19.90	21.07	24.90	25.28	25.81	26.19	27.36