

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: P936605

Luminaire Tested: SQ4-FB-025U-125D-B50-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

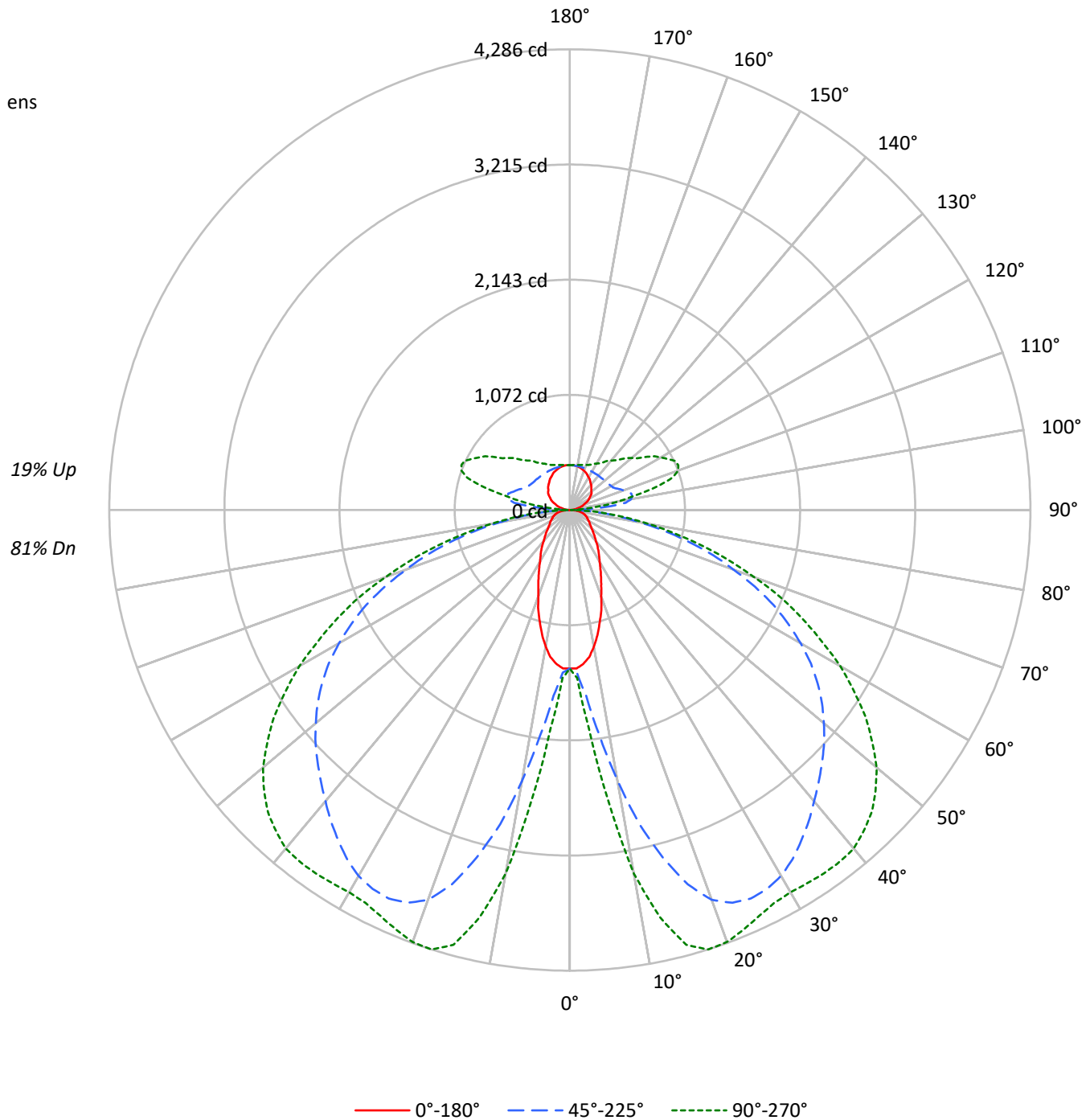
Test Method: LM-79-2019  
Report Number: P936605  
REPORT IS A COMBINATION OF REPORTS P933432 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-125D-B50-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14120.2 lumens  
Efficiency: N/A  
Efficacy: 94.9 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): 148.8  
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	114	114	114	114	110	110	110	110	100	100	100	92	92	92	84	84	84	84	84	84	81
1	104	99	94	90	99	95	91	87	87	84	81	80	77	75	73	71	70	70	70	70	66
2	94	85	78	72	89	82	75	70	75	70	66	69	65	61	63	60	57	57	57	57	54
3	85	74	66	59	81	71	64	58	65	59	54	60	55	51	55	51	48	48	48	48	45
4	77	65	56	49	74	63	54	48	58	51	45	53	47	43	49	44	40	40	40	40	37
5	71	58	49	42	67	55	47	41	51	44	39	47	41	36	43	38	34	34	34	34	32
6	65	51	42	36	62	49	41	35	46	39	33	42	36	31	39	34	30	30	30	30	27
7	60	46	37	31	57	45	36	30	41	34	29	38	32	27	35	30	26	26	26	26	24
8	55	42	33	27	53	40	32	27	37	30	25	35	29	24	32	27	23	23	23	23	21
9	52	38	30	24	49	37	29	24	34	27	23	32	26	22	29	24	20	20	20	20	18
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	18	18	18	16

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

	0°	45°	90°
0°	4561	4561	4561
5°	4458	5273	6131
10°	4045	7688	10164
15°	3439	10047	12273
20°	2801	11646	12508
25°	2337	12190	12254
30°	1972	12270	12231
35°	1745	12069	12547
40°	1521	11808	12874
45°	1378	11618	12924
50°	1265	11447	12710
55°	1213	11196	12147
60°	1243	10709	11257
65°	1296	9966	10035
70°	1383	8698	8477
75°	1538	7098	6616
80°	1694	4929	4458
85°	1536	2620	2282

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12924 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.8	1.4
10°-20°	845.4	6.0
20°-30°	1478.8	10.5
30°-40°	1903.6	13.5
40°-50°	2126.3	15.1
50°-60°	2036.5	14.4
60°-70°	1613.9	11.4
70°-80°	949.0	6.7
80°-90°	265.2	1.9
90°-100°	203.8	1.4
100°-110°	535.9	3.8
110°-120°	555.7	3.9
120°-130°	445.7	3.2
130°-140°	349.7	2.5
140°-150°	268.4	1.9
150°-160°	193.3	1.4
160°-170°	118.3	0.8
170°-180°	40.0	0.3
0°-30°	2514.9	17.8
0°-40°	4418.6	31.3
0°-60°	8581.3	60.8
0°-90°	11409.5	80.8
90°-120°	1295.4	9.2
90°-150°	2359.2	16.7
90°-180°	2711.0	19.2
0°-180°	14120.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1437	1541	1736	1963	2034	133
15°	1076	1987	3348	4059	4187	300
25°	688	2252	3988	4163	4168	317
35°	465	2153	3755	3969	4125	290
45°	318	1716	3319	3803	3974	246
55°	228	1090	2817	3272	3362	207
65°	180	578	2091	2352	2385	179
75°	133	356	1148	1261	1266	139
85°	47	109	284	313	318	50
90°	3	8	21	11	11	6
95°	27	106	351	181	123	30
105°	97	146	592	899	839	102
115°	172	208	475	947	1080	169
125°	238	268	432	729	860	212
135°	284	313	418	589	668	220
145°	330	351	413	502	542	207
155°	373	383	413	453	466	171
165°	402	408	413	429	434	114
175°	418	418	416	421	421	40
180°	418	418	418	418	418	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7
2.5°	1474.7	1474.7	1484.1	1488.9	1498.3	1503.1	1512.6	1522.0	1550.5	1555.3	1564.7
5°	1436.7	1455.6	1517.3	1541.0	1607.4	1697.5	1735.5	1797.1	1925.1	1963.1	1986.7
7.5°	1379.8	1422.5	1574.3	1612.2	1778.1	2015.2	2114.8	2247.6	2451.5	2551.0	2631.6
10°	1289.8	1379.8	1650.1	1740.1	2010.4	2370.8	2555.7	2740.6	3048.9	3186.3	3238.6
12.5°	1190.2	1337.1	1730.7	1854.0	2242.8	2769.1	2992.0	3195.9	3546.8	3731.7	3760.1
15°	1076.3	1275.5	1806.5	1986.7	2489.4	3101.1	3347.5	3598.9	3926.1	4058.9	4092.0
17.5°	976.8	1228.1	1877.7	2067.3	2679.0	3399.8	3651.1	3859.7	4125.2	4215.3	4239.1
20°	853.5	1152.2	1925.1	2171.6	2878.2	3617.8	3859.7	4020.9	4201.1	4258.0	4267.4
22.5°	763.4	1071.6	1953.6	2209.6	3010.9	3750.7	3954.6	4082.5	4205.8	4224.8	4229.5
25°	687.5	981.5	1948.8	2252.2	3124.7	3831.3	3987.7	4082.5	4153.7	4163.1	4163.1
27.5°	616.4	882.0	1929.8	2261.8	3210.1	3850.2	3973.5	4039.8	4073.1	4092.0	4092.0
30°	554.8	787.1	1882.4	2242.8	3248.0	3831.3	3930.8	3964.0	3997.2	4025.6	4039.8
32.5°	507.3	697.0	1811.3	2204.9	3252.7	3783.8	3855.0	3874.0	3921.3	3987.7	4011.4
35°	464.7	606.9	1730.7	2152.7	3224.4	3708.0	3755.3	3774.4	3869.2	3968.8	4001.9
37.5°	422.0	540.5	1626.4	2062.6	3181.7	3617.8	3651.1	3684.3	3831.3	3949.8	3987.7
40°	379.3	483.6	1503.1	1963.1	3115.3	3508.9	3537.2	3589.5	3783.8	3921.3	3959.2
42.5°	346.1	436.3	1370.4	1858.8	3029.9	3385.6	3428.2	3504.1	3726.9	3874.0	3916.6
45°	317.7	388.8	1228.1	1716.5	2920.8	3257.5	3319.2	3423.5	3660.5	3802.8	3840.7
47.5°	289.3	355.7	1081.1	1569.5	2802.3	3129.5	3210.1	3328.6	3570.5	3708.0	3741.1
50°	265.5	322.4	934.1	1413.0	2674.3	2992.0	3086.8	3210.1	3456.6	3584.7	3627.4
52.5°	246.6	294.0	796.6	1256.5	2527.3	2849.7	2958.8	3086.8	3319.2	3442.4	3470.8
55°	227.6	270.3	678.1	1090.5	2375.5	2698.0	2816.6	2939.9	3167.4	3271.7	3290.7
57.5°	218.1	251.3	578.5	934.1	2214.3	2527.3	2660.0	2773.9	2987.2	3067.8	3086.8
60°	203.9	237.0	502.6	801.4	2038.9	2366.1	2479.9	2593.7	2773.9	2840.2	2854.5
62.5°	189.7	227.6	445.7	673.3	1858.8	2176.4	2290.2	2394.5	2546.3	2593.7	2612.7
65°	180.2	218.1	403.0	578.5	1673.8	1977.3	2091.0	2181.2	2304.5	2351.8	2361.3
67.5°	170.7	208.7	369.9	497.9	1488.9	1778.1	1863.4	1948.8	2043.7	2091.0	2095.8
70°	156.4	199.1	341.4	440.9	1299.2	1550.5	1621.6	1711.7	1787.6	1811.3	1825.5
72.5°	147.0	184.9	322.4	398.3	1104.8	1332.4	1398.8	1451.0	1517.3	1541.0	1541.0
75°	132.7	166.0	303.5	355.7	905.6	1090.5	1147.5	1199.6	1251.7	1261.3	1247.1
77.5°	118.5	147.0	260.8	298.7	706.5	863.0	910.4	938.9	981.5	991.0	995.7
80°	99.6	128.1	203.9	232.4	512.1	635.4	668.6	692.3	730.2	730.2	739.7
82.5°	75.8	99.6	147.0	166.0	346.1	436.3	464.7	478.9	502.6	502.6	502.6
85°	47.4	61.6	94.8	109.1	208.7	265.5	284.5	289.3	308.2	313.0	313.0
87.5°	23.7	33.2	61.6	66.4	109.1	137.5	137.5	147.0	147.0	142.2	137.5
90°	2.8	5.0	7.3	7.8	12.3	18.3	21.3	19.0	14.2	10.6	10.6
92.5°	11.2	30.3	49.4	54.2	76.1	105.4	120.1	105.3	75.6	53.3	51.2
95°	26.9	61.8	96.8	105.5	187.4	296.5	351.1	313.3	237.7	181.0	174.6
97.5°	46.6	77.4	108.3	115.9	252.4	434.4	525.4	501.5	453.7	417.9	405.6
100°	61.7	89.7	117.6	124.6	276.1	478.0	579.0	580.8	584.2	586.8	572.3
102.5°	74.6	100.7	126.7	133.3	286.9	491.8	594.1	624.6	685.4	731.0	718.5
105°	96.6	118.6	140.7	146.2	295.0	493.2	592.4	660.6	797.1	899.4	892.7
107.5°	119.0	139.5	160.2	165.3	296.5	471.3	558.7	653.9	844.2	987.1	988.6
110°	134.1	152.7	171.3	176.0	294.2	451.9	530.7	637.1	849.8	1009.5	1016.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	149.1	166.7	184.5	188.9	294.3	434.9	505.2	614.1	831.8	995.2	1005.9
115°	171.5	187.8	204.2	208.3	297.0	415.3	474.6	579.5	789.2	946.6	961.5
117.5°	193.6	208.5	223.3	227.1	302.5	403.2	453.6	548.3	737.6	879.5	896.1
120°	206.5	220.5	234.5	238.0	307.0	399.0	445.1	531.5	704.6	834.3	850.4
122.5°	219.2	233.3	247.3	250.9	313.5	396.9	438.6	516.5	672.3	789.1	804.9
125°	238.5	251.4	264.3	267.5	322.2	395.2	431.6	497.7	630.1	729.4	743.9
127.5°	254.2	267.2	280.2	283.5	330.9	394.1	425.7	482.5	596.2	681.4	693.7
130°	262.6	276.7	290.7	294.1	337.3	394.7	423.5	474.1	575.3	651.1	662.5
132.5°	271.4	285.3	299.3	302.8	342.4	395.2	421.5	466.8	557.4	625.3	635.5
135°	284.3	297.0	309.7	312.9	348.0	394.8	418.2	456.1	531.9	588.8	597.6
137.5°	297.5	310.1	322.6	325.8	356.4	397.2	417.6	449.6	513.7	561.8	569.0
140°	308.4	320.0	331.7	334.6	361.6	397.6	415.6	443.3	498.7	540.2	547.0
142.5°	316.8	327.6	338.3	341.0	365.8	399.0	415.6	439.9	488.6	525.1	530.9
145°	329.8	339.1	348.5	350.8	371.5	399.0	412.8	432.7	472.5	502.3	506.7
147.5°	342.7	351.7	360.9	363.1	379.7	401.8	412.8	428.5	459.8	483.3	486.9
150°	351.1	359.3	367.5	369.6	384.0	403.2	412.8	426.1	452.5	472.3	475.2
152.5°	359.8	366.0	372.2	373.8	386.8	404.1	412.8	424.1	446.7	463.6	465.9
155°	372.7	377.2	381.9	383.0	392.9	406.2	412.8	421.8	439.8	453.3	454.8
157.5°	382.2	386.7	391.3	392.4	399.2	408.3	412.8	419.8	433.7	444.2	445.2
160°	388.7	392.2	395.7	396.6	402.0	409.2	412.8	418.8	430.8	439.7	440.3
162.5°	395.2	397.8	400.4	401.1	405.0	410.2	412.8	417.9	428.0	435.5	436.1
165°	402.2	404.5	406.9	407.5	409.3	411.6	412.8	416.5	423.7	429.1	429.6
167.5°	408.6	409.7	410.9	411.1	412.6	414.6	415.6	418.0	422.7	426.3	426.6
170°	412.8	413.9	415.1	415.3	415.4	415.5	415.6	418.0	422.7	426.3	426.3
172.5°	415.1	415.3	415.5	415.6	415.6	415.6	415.6	417.5	421.2	424.0	423.8
175°	418.2	418.2	418.2	418.2	417.3	416.2	415.6	416.8	419.2	421.0	421.0
177.5°	418.2	418.2	418.2	418.2	417.5	416.7	416.2	417.1	419.0	420.4	420.1
180°	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1474.7	1474.7
2.5°	1574.3	1564.7
5°	2024.7	2034.2
7.5°	2726.4	2721.7
10°	3390.2	3432.9
12.5°	3874.0	3883.4
15°	4167.9	4186.8
17.5°	4281.7	4286.4
20°	4286.4	4277.0
22.5°	4234.3	4224.8
25°	4172.6	4167.9
27.5°	4115.8	4120.5
30°	4092.0	4106.2
32.5°	4092.0	4115.8
35°	4101.5	4125.2
37.5°	4096.8	4125.2
40°	4077.8	4111.0
42.5°	4025.6	4049.4
45°	3945.0	3973.5
47.5°	3840.7	3859.7
50°	3708.0	3726.9
52.5°	3542.0	3546.8
55°	3342.9	3361.8
57.5°	3129.5	3134.2
60°	2892.4	2906.6
62.5°	2641.1	2641.1
65°	2375.5	2385.1
67.5°	2100.6	2124.3
70°	1820.8	1825.5
72.5°	1545.8	1545.8
75°	1261.3	1266.0
77.5°	991.0	991.0
80°	735.0	739.7
82.5°	507.3	516.9
85°	317.7	317.7
87.5°	147.0	132.7
90°	10.6	10.6
92.5°	42.8	34.3
95°	148.9	123.2
97.5°	356.8	307.8
100°	514.1	455.8
102.5°	668.7	618.8
105°	865.9	839.1
107.5°	995.2	1001.6
110°	1044.4	1072.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1048.8	1091.7
115°	1021.0	1080.5
117.5°	962.0	1028.0
120°	914.5	978.6
122.5°	868.2	931.5
125°	802.1	860.4
127.5°	742.8	791.9
130°	707.9	753.3
132.5°	676.1	716.8
135°	632.6	667.6
137.5°	597.7	626.4
140°	573.8	600.6
142.5°	554.0	577.0
145°	524.2	541.6
147.5°	501.4	515.8
150°	487.0	498.7
152.5°	474.7	483.5
155°	460.6	466.4
157.5°	449.4	453.6
160°	442.7	445.1
162.5°	438.3	440.6
165°	432.1	434.4
167.5°	427.5	428.5
170°	426.3	426.3
172.5°	422.9	422.1
175°	421.0	421.0
177.5°	419.2	418.2
180°	418.2	418.2



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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	8.71	10.01	9.34	10.66	11.41	21.90	23.20	22.53	23.85	24.60
	3H	9.44	10.62	10.09	11.28	12.06	23.77	24.95	24.42	25.61	26.39
	4H	9.76	10.87	10.43	11.55	12.34	24.44	25.56	25.11	26.23	27.02
	6H	10.03	11.07	10.71	11.75	12.56	24.90	25.93	25.58	26.61	27.42
	8H	10.11	11.10	10.80	11.80	12.62	25.04	26.02	25.73	26.73	27.54
	12H	10.15	11.09	10.84	11.79	12.63	25.12	26.06	25.82	26.76	27.60
4H	2H	15.98	17.09	16.65	17.77	18.56	22.22	23.34	22.89	24.01	24.80
	3H	17.59	18.52	18.27	19.23	20.05	24.31	25.25	24.99	25.96	26.77
	4H	17.70	18.55	18.40	19.27	20.11	25.10	25.95	25.80	26.67	27.51
	6H	17.74	18.48	18.45	19.22	20.07	25.67	26.41	26.39	27.15	28.01
	8H	17.73	18.42	18.45	19.16	20.02	25.85	26.54	26.57	27.28	28.15
	12H	17.70	18.33	18.45	19.09	19.96	25.97	26.59	26.71	27.35	28.23
8H	4H	19.19	19.88	19.91	20.62	21.48	25.20	25.90	25.92	26.63	27.50
	6H	19.45	20.03	20.20	20.81	21.67	25.86	26.43	26.61	27.21	28.08
	8H	19.47	19.99	20.24	20.77	21.65	26.08	26.60	26.85	27.38	28.26
	12H	19.46	19.92	20.23	20.69	21.63	26.25	26.71	27.02	27.48	28.42
12H	4H	19.35	19.98	20.10	20.74	21.61	25.18	25.80	25.92	26.56	27.43
	6H	19.72	20.23	20.48	21.01	21.90	25.84	26.36	26.61	27.14	28.02
	8H	19.81	20.26	20.57	21.03	21.98	26.10	26.55	26.87	27.32	28.27