

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: P936979

Luminaire Tested: SQ4-FB-050U-125D-B2750-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936979
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-B2750-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

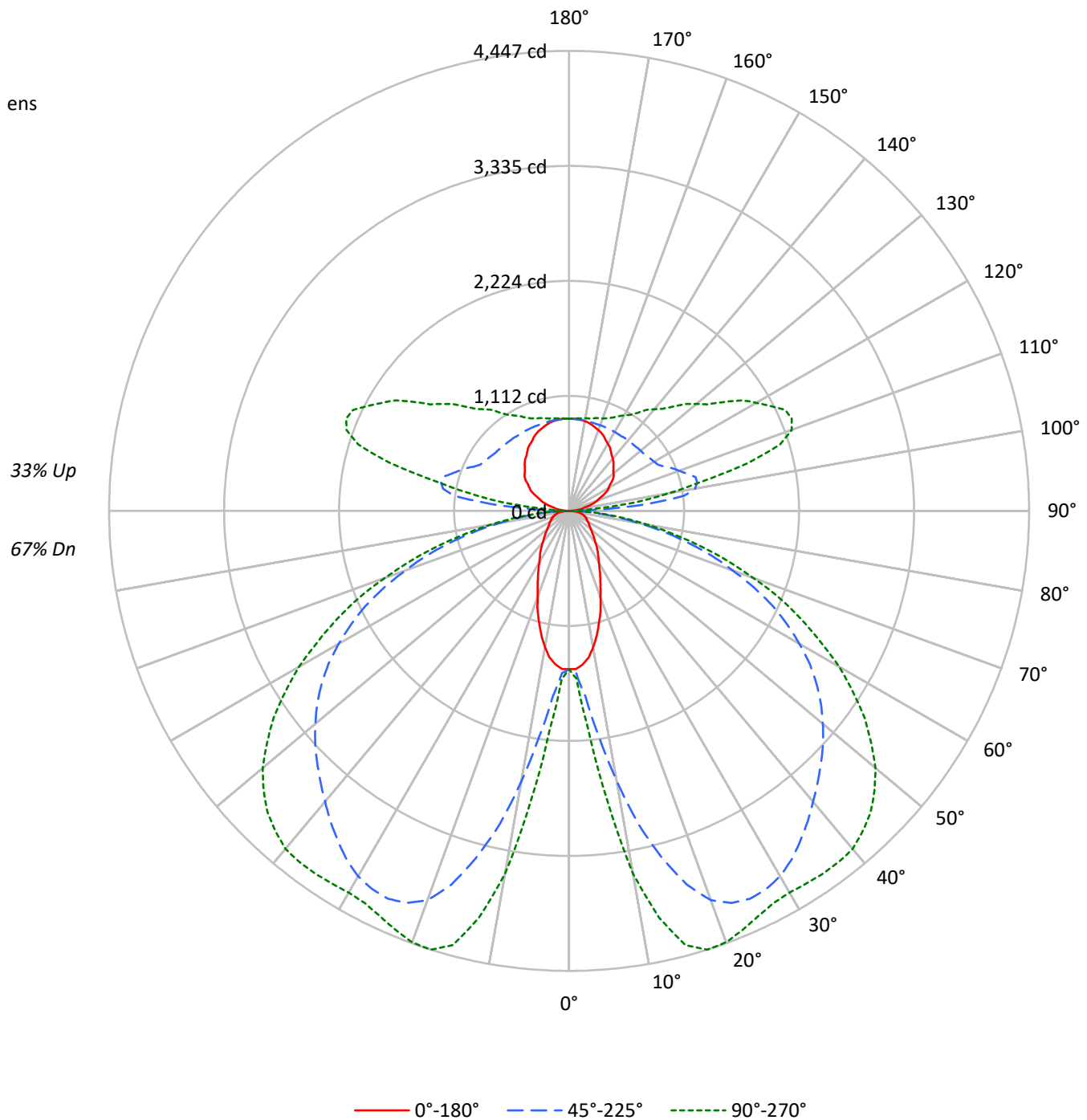
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17626.1 lumens
Efficiency: N/A
Efficacy: 104.9 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): 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				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	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°	4732	4732	4732
5°	4624	5471	6361
10°	4197	7977	10545
15°	3568	10424	12733
20°	2906	12082	12977
25°	2425	12647	12713
30°	2046	12730	12689
35°	1810	12522	13017
40°	1578	12251	13357
45°	1430	12053	13409
50°	1313	11876	13187
55°	1258	11615	12602
60°	1290	11110	11679
65°	1344	10340	10411
70°	1435	9024	8795
75°	1596	7364	6864
80°	1757	5113	4625
85°	1594	2718	2367

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13409 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.9	1.1
10°-20°	877.1	5.0
20°-30°	1534.2	8.7
30°-40°	1974.9	11.2
40°-50°	2205.9	12.5
50°-60°	2112.8	12.0
60°-70°	1674.4	9.5
70°-80°	984.6	5.6
80°-90°	276.9	1.6
90°-100°	435.1	2.5
100°-110°	1144.1	6.5
110°-120°	1186.3	6.7
120°-130°	951.5	5.4
130°-140°	746.6	4.2
140°-150°	573.1	3.3
150°-160°	412.7	2.3
160°-170°	252.5	1.4
170°-180°	85.3	0.5
0°-30°	2609.2	14.8
0°-40°	4584.1	26.0
0°-60°	8902.9	50.5
0°-90°	11838.8	67.2
90°-120°	2765.5	15.7
90°-150°	5036.8	28.6
90°-180°	5787.0	32.8
0°-180°	17626.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1530	1530	1530	1530	1530	
5°	1490	1599	1800	2037	2110	138
15°	1117	2061	3473	4211	4344	311
25°	713	2337	4137	4319	4324	329
35°	482	2233	3896	4118	4280	301
45°	330	1781	3444	3945	4122	255
55°	236	1131	2922	3394	3488	215
65°	187	600	2169	2440	2474	185
75°	138	369	1190	1308	1314	144
85°	49	113	295	325	330	52
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°	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0
2.5°	1530.0	1530.0	1539.7	1544.7	1554.5	1559.4	1569.3	1579.1	1608.6	1613.6	1623.4
5°	1490.5	1510.2	1574.1	1598.8	1667.6	1761.2	1800.5	1864.5	1997.2	2036.6	2061.2
7.5°	1431.5	1475.8	1633.2	1672.6	1844.8	2090.7	2194.0	2331.8	2543.3	2646.6	2730.3
10°	1338.1	1431.5	1711.9	1805.3	2085.8	2459.6	2651.5	2843.3	3163.1	3305.7	3359.9
12.5°	1234.8	1387.2	1795.6	1923.5	2326.9	2872.9	3104.1	3315.6	3679.7	3871.5	3901.0
15°	1116.7	1323.3	1874.2	2061.2	2582.7	3217.3	3473.0	3733.8	4073.2	4211.0	4245.4
17.5°	1013.4	1274.1	1948.1	2144.8	2779.4	3527.2	3787.9	4004.3	4279.8	4373.3	4397.9
20°	885.5	1195.4	1997.2	2253.0	2986.1	3753.4	4004.3	4171.5	4358.6	4417.6	4427.4
22.5°	792.0	1111.7	2026.8	2292.4	3123.8	3891.2	4102.7	4235.5	4363.4	4383.1	4388.0
25°	713.3	1018.3	2021.8	2336.6	3241.8	3974.8	4137.1	4235.5	4309.3	4319.1	4319.1
27.5°	639.5	915.0	2002.1	2346.5	3330.4	3994.5	4122.4	4191.2	4225.7	4245.4	4245.4
30°	575.6	816.6	1952.9	2326.9	3369.7	3974.8	4078.1	4112.5	4147.0	4176.5	4191.2
32.5°	526.4	723.2	1879.2	2287.5	3374.6	3925.6	3999.5	4019.1	4068.2	4137.1	4161.8
35°	482.1	629.7	1795.6	2233.4	3345.2	3846.9	3896.1	3915.8	4014.2	4117.5	4151.9
37.5°	437.8	560.8	1687.3	2139.9	3300.9	3753.4	3787.9	3822.3	3974.8	4097.8	4137.1
40°	393.5	501.7	1559.4	2036.6	3232.0	3640.3	3669.8	3724.0	3925.6	4068.2	4107.6
42.5°	359.1	452.6	1421.7	1928.4	3143.4	3512.4	3556.7	3635.4	3866.6	4019.1	4063.4
45°	329.6	403.4	1274.1	1780.8	3030.3	3379.6	3443.5	3551.8	3797.7	3945.3	3984.6
47.5°	300.1	369.0	1121.6	1628.3	2907.3	3246.7	3330.4	3453.3	3704.3	3846.9	3881.3
50°	275.5	334.5	969.1	1466.0	2774.5	3104.1	3202.4	3330.4	3586.2	3719.0	3763.3
52.5°	255.8	305.0	826.5	1303.6	2622.0	2956.5	3069.7	3202.4	3443.5	3571.4	3600.9
55°	236.1	280.4	703.5	1131.4	2464.6	2799.1	2922.1	3050.0	3286.1	3394.3	3414.0
57.5°	226.3	260.8	600.2	969.1	2297.3	2622.0	2759.7	2877.8	3099.2	3182.8	3202.4
60°	211.5	245.9	521.4	831.4	2115.3	2454.8	2572.8	2690.9	2877.8	2946.6	2961.5
62.5°	196.8	236.1	462.4	698.6	1928.4	2258.0	2376.0	2484.2	2641.7	2690.9	2710.6
65°	186.9	226.3	418.1	600.2	1736.5	2051.4	2169.4	2262.9	2390.8	2439.9	2449.8
67.5°	177.1	216.5	383.7	516.6	1544.7	1844.8	1933.3	2021.8	2120.3	2169.4	2174.3
70°	162.3	206.6	354.2	457.5	1347.9	1608.6	1682.4	1775.9	1854.6	1879.2	1893.9
72.5°	152.5	191.9	334.5	413.2	1146.2	1382.4	1451.2	1505.3	1574.1	1598.8	1598.8
75°	137.7	172.2	314.8	369.0	939.5	1131.4	1190.5	1244.6	1298.7	1308.5	1293.8
77.5°	123.0	152.5	270.5	309.9	733.0	895.4	944.5	974.0	1018.3	1028.1	1033.1
80°	103.3	132.8	211.5	241.1	531.3	659.2	693.6	718.2	757.6	757.6	767.4
82.5°	78.7	103.3	152.5	172.2	359.1	452.6	482.1	496.8	521.4	521.4	521.4
85°	49.2	64.0	98.4	113.2	216.5	275.5	295.2	300.1	319.8	324.7	324.7
87.5°	24.6	34.4	64.0	68.9	113.2	142.6	142.6	152.5	152.5	147.6	142.6
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°	1530.0	1530.0
2.5°	1633.2	1623.4
5°	2100.6	2110.4
7.5°	2828.6	2823.7
10°	3517.3	3561.6
12.5°	4019.1	4028.9
15°	4324.1	4343.7
17.5°	4442.2	4447.0
20°	4447.0	4437.2
22.5°	4393.0	4383.1
25°	4329.0	4324.1
27.5°	4270.0	4274.9
30°	4245.4	4260.1
32.5°	4245.4	4270.0
35°	4255.2	4279.8
37.5°	4250.3	4279.8
40°	4230.7	4265.1
42.5°	4176.5	4201.1
45°	4092.9	4122.4
47.5°	3984.6	4004.3
50°	3846.9	3866.6
52.5°	3674.7	3679.7
55°	3468.1	3487.8
57.5°	3246.7	3251.7
60°	3000.8	3015.5
62.5°	2740.0	2740.0
65°	2464.6	2474.4
67.5°	2179.3	2203.9
70°	1889.1	1893.9
72.5°	1603.7	1603.7
75°	1308.5	1313.5
77.5°	1028.1	1028.1
80°	762.5	767.4
82.5°	526.4	536.2
85°	329.6	329.6
87.5°	152.5	137.7
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	7.84	8.93	8.62	9.75	10.75	21.03	22.13	21.81	22.94	23.94
	3H	8.56	9.55	9.36	10.37	11.40	22.89	23.88	23.69	24.70	25.73
	4H	8.87	9.80	9.68	10.64	11.68	23.55	24.49	24.37	25.32	26.36
	6H	9.13	10.00	9.96	10.84	11.89	24.00	24.86	24.83	25.70	26.76
	8H	9.21	10.03	10.04	10.89	11.94	24.13	24.95	24.97	25.81	26.87
	12H	9.23	10.02	10.08	10.87	11.95	24.21	24.99	25.05	25.85	26.93
4H	2H	15.09	16.02	15.91	16.86	17.90	21.33	22.27	22.15	23.10	24.14
	3H	16.68	17.46	17.51	18.33	19.38	23.40	24.19	24.24	25.05	26.11
	4H	16.78	17.50	17.63	18.36	19.44	24.18	24.90	25.03	25.76	26.85
	6H	16.81	17.43	17.67	18.32	19.40	24.74	25.36	25.60	26.25	27.34
	8H	16.79	17.37	17.66	18.25	19.35	24.91	25.49	25.78	26.38	27.48
	12H	16.76	17.28	17.64	18.19	19.29	25.02	25.55	25.91	26.45	27.55
8H	4H	18.25	18.83	19.12	19.71	20.81	24.26	24.85	25.13	25.73	26.83
	6H	18.50	18.99	19.40	19.91	21.01	24.91	25.39	25.80	26.32	27.42
	8H	18.53	18.95	19.43	19.87	20.99	25.14	25.56	26.04	26.48	27.60
	12H	18.51	18.88	19.41	19.79	20.96	25.29	25.67	26.20	26.58	27.75
12H	4H	18.41	18.93	19.29	19.83	20.94	24.23	24.75	25.12	25.66	26.76
	6H	18.77	19.20	19.67	20.11	21.23	24.90	25.33	25.80	26.24	27.36
	8H	18.85	19.23	19.76	20.14	21.30	25.14	25.52	26.05	26.43	27.60