

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: P938246

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938246
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

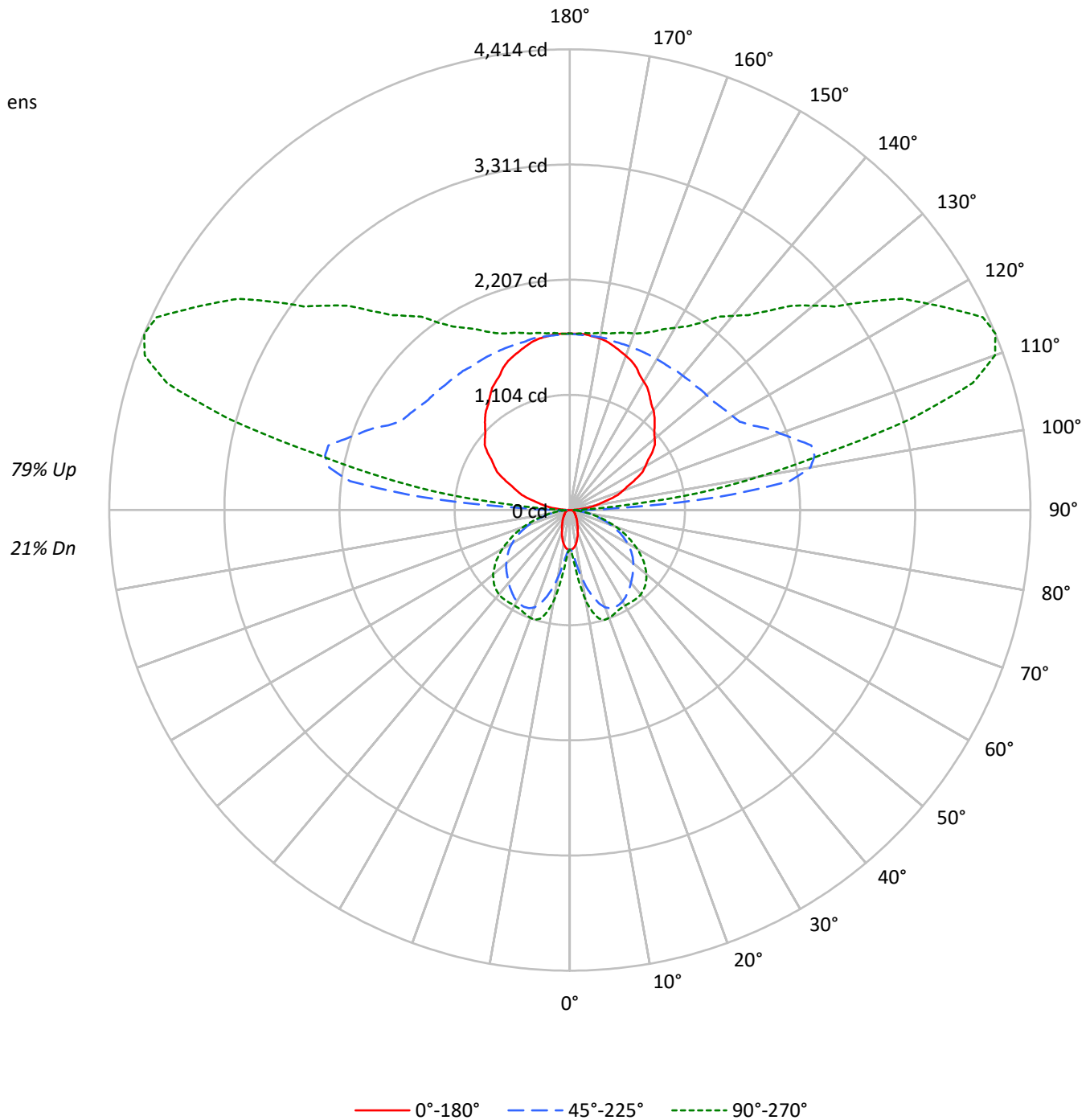
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13902.0 lumens
Efficiency: N/A
Efficacy: 125.0 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-Indirect

Input Watts (W): 111.2
Input Voltage (V): NR
Input Current (A_{in}): 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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1760	1760	1760
5°	1720	2035	2366
10°	1560	2966	3923
15°	1326	3875	4737
20°	1079	4490	4828
25°	900	4699	4730
30°	759	4729	4721
35°	671	4650	4843
40°	585	4548	4969
45°	530	4474	4988
50°	486	4406	4906
55°	466	4308	4689
60°	477	4119	4345
65°	496	3831	3873
70°	529	3341	3272
75°	586	2724	2553
80°	641	1889	1720
85°	568	1002	881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4988 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	0.4
10°-20°	217.5	1.6
20°-30°	380.5	2.7
30°-40°	489.8	3.5
40°-50°	547.1	3.9
50°-60°	524.0	3.8
60°-70°	415.3	3.0
70°-80°	244.2	1.8
80°-90°	74.3	0.5
90°-100°	824.1	5.9
100°-110°	2166.7	15.6
110°-120°	2246.6	16.2
120°-130°	1802.1	13.0
130°-140°	1414.0	10.2
140°-150°	1085.3	7.8
150°-160°	781.6	5.6
160°-170°	478.2	3.4
170°-180°	161.6	1.2
0°-30°	647.1	4.7
0°-40°	1137.0	8.2
0°-60°	2208.1	15.9
0°-90°	2941.9	21.2
90°-120°	5237.4	37.7
90°-150°	9538.8	68.6
90°-180°	10960.0	78.8
0°-180°	13902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	370	396	446	505	523	34
15°	277	511	861	1044	1077	77
25°	177	580	1026	1071	1072	81
35°	120	554	966	1021	1062	75
45°	82	442	854	978	1022	63
55°	59	281	725	842	865	53
65°	46	149	538	605	614	46
75°	34	92	295	325	326	36
85°	12	28	73	80	82	13
90°	11	32	86	43	43	10
95°	109	427	1420	732	498	121
105°	390	591	2395	3637	3393	414
115°	693	842	1919	3827	4368	685
125°	964	1081	1745	2949	3479	856
135°	1149	1265	1691	2381	2699	889
145°	1333	1418	1669	2031	2190	835
155°	1507	1549	1669	1833	1886	692
165°	1626	1648	1669	1735	1756	459
175°	1691	1691	1680	1702	1702	160
180°	1691	1691	1691	1691	1691	



TEST NUMBER: P938246

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4
2.5°	379.4	379.4	381.9	383.1	385.5	386.8	389.2	391.7	399.0	400.1	402.6
5°	369.7	374.6	390.4	396.5	413.6	436.8	446.5	462.4	495.4	505.1	511.2
7.5°	355.0	366.0	405.1	414.8	457.5	518.5	544.1	578.3	630.7	656.4	677.1
10°	331.8	355.0	424.6	447.8	517.3	610.0	657.7	705.2	784.5	819.9	833.3
12.5°	306.3	344.0	445.4	477.0	577.1	712.5	769.9	822.3	912.6	960.2	967.5
15°	277.0	328.2	464.8	511.2	640.6	797.9	861.4	926.0	1010.2	1044.4	1052.9
17.5°	251.3	316.0	483.2	532.0	689.3	874.8	939.5	993.1	1061.5	1084.7	1090.7
20°	219.6	296.5	495.4	558.8	740.6	930.9	993.1	1034.6	1081.0	1095.7	1098.1
22.5°	196.4	275.7	502.7	568.5	774.7	965.1	1017.5	1050.5	1082.2	1087.1	1088.3
25°	176.9	252.5	501.5	579.5	804.0	985.9	1026.1	1050.5	1068.8	1071.3	1071.3
27.5°	158.6	227.0	496.6	582.0	826.0	990.7	1022.4	1039.5	1048.1	1052.9	1052.9
30°	142.7	202.6	484.4	577.1	835.8	985.9	1011.4	1020.0	1028.5	1035.9	1039.5
32.5°	130.5	179.4	466.1	567.3	837.0	973.6	992.0	996.8	1009.0	1026.1	1032.2
35°	119.5	156.2	445.4	553.9	829.7	954.1	966.3	971.2	995.6	1021.2	1029.7
37.5°	108.6	139.1	418.5	530.8	818.7	930.9	939.5	948.0	985.9	1016.3	1026.1
40°	97.6	124.4	386.8	505.1	801.6	902.9	910.2	923.6	973.6	1009.0	1018.8
42.5°	89.1	112.2	352.6	478.3	779.6	871.2	882.2	901.6	959.0	996.8	1007.8
45°	81.8	100.1	316.0	441.6	751.5	838.2	854.1	880.9	941.9	978.5	988.2
47.5°	74.4	91.5	278.2	403.9	721.1	805.3	826.0	856.5	918.7	954.1	962.7
50°	68.3	83.0	240.3	363.6	688.1	769.9	794.3	826.0	889.4	922.4	933.4
52.5°	63.4	75.7	204.9	323.3	650.3	733.3	761.4	794.3	854.1	885.8	893.1
55°	58.6	69.6	174.5	280.6	611.3	694.2	724.7	756.5	815.0	841.9	846.8
57.5°	56.1	64.7	148.8	240.3	569.8	650.3	684.5	713.8	768.6	789.4	794.3
60°	52.5	61.0	129.4	206.2	524.7	608.8	638.1	667.4	713.8	730.8	734.5
62.5°	48.8	58.6	114.7	173.3	478.3	560.1	589.3	616.2	655.2	667.4	672.3
65°	46.4	56.1	103.7	148.8	430.7	508.8	538.1	561.2	593.0	605.2	607.6
67.5°	43.9	53.7	95.1	128.1	383.1	457.5	479.5	501.5	525.9	538.1	539.2
70°	40.3	51.2	87.9	113.4	334.3	399.0	417.3	440.4	460.0	466.1	469.7
72.5°	37.8	47.6	83.0	102.5	284.3	342.8	359.9	373.3	390.4	396.5	396.5
75°	34.2	42.7	78.0	91.5	233.0	280.6	295.3	308.6	322.1	324.6	320.9
77.5°	30.5	37.8	67.1	76.9	181.8	222.0	234.2	241.6	252.5	255.0	256.2
80°	25.7	32.9	52.5	59.8	131.8	163.5	172.0	178.1	187.9	187.9	190.3
82.5°	19.6	25.7	37.8	42.7	89.1	112.2	119.5	123.3	129.4	129.4	129.4
85°	12.2	15.8	24.4	28.0	53.7	68.3	73.2	74.4	79.3	80.5	80.5
87.5°	6.1	8.6	15.8	17.1	28.0	35.4	35.4	37.8	37.8	36.6	35.4
90°	11.4	20.5	29.5	31.7	49.9	74.1	86.2	76.7	57.5	43.1	43.1
92.5°	45.4	122.5	199.8	219.0	307.9	426.4	485.7	425.6	305.6	215.6	207.0
95°	109.0	250.2	391.3	426.6	757.5	1198.8	1419.5	1266.7	961.1	731.9	705.9
97.5°	188.4	312.9	437.5	468.6	1020.5	1756.3	2124.2	2027.6	1834.5	1689.6	1640.2
100°	249.6	362.6	475.6	503.8	1116.2	1932.6	2340.9	2348.0	2362.1	2372.6	2313.8
102.5°	301.8	407.2	512.6	539.0	1160.1	1988.1	2402.2	2525.2	2771.3	2955.9	2905.5
105°	390.3	479.6	568.9	591.2	1192.5	1994.4	2395.3	2671.2	3222.9	3636.7	3609.6
107.5°	481.1	564.3	647.5	668.3	1198.6	1905.7	2259.2	2644.0	3413.6	3990.8	3997.3
110°	542.4	617.6	692.7	711.4	1189.5	1827.0	2145.7	2575.9	3436.2	4081.5	4109.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	602.5	674.1	745.7	763.6	1189.9	1758.2	2042.4	2482.7	3363.2	4023.6	4067.0
115°	693.3	759.4	825.4	842.0	1200.9	1679.5	1918.8	2342.9	3191.1	3827.3	3887.4
117.5°	782.9	843.0	903.0	918.0	1223.2	1630.2	1833.6	2216.4	2982.0	3556.1	3622.8
120°	835.1	891.6	948.1	962.2	1241.4	1613.5	1799.6	2149.4	2848.9	3373.5	3438.2
122.5°	886.2	943.2	1000.1	1014.4	1267.5	1604.9	1773.5	2088.4	2718.4	3190.7	3254.7
125°	964.5	1016.4	1068.4	1081.4	1302.6	1597.6	1745.1	2012.7	2547.7	2949.0	3007.9
127.5°	1028.1	1080.5	1133.0	1146.1	1337.8	1593.5	1721.3	1951.0	2410.4	2755.0	2804.7
130°	1062.1	1118.6	1175.1	1189.2	1363.5	1596.0	1712.2	1916.7	2325.8	2632.5	2678.4
132.5°	1097.3	1153.8	1210.3	1224.4	1384.4	1597.7	1704.3	1887.3	2253.4	2528.1	2569.2
135°	1149.4	1200.9	1252.4	1265.2	1407.0	1596.1	1690.7	1844.0	2150.7	2380.6	2416.0
137.5°	1202.8	1253.8	1304.6	1317.3	1441.0	1606.0	1688.5	1818.1	2077.2	2271.6	2300.7
140°	1247.0	1294.0	1340.8	1352.5	1461.9	1607.6	1680.5	1792.4	2016.4	2184.3	2211.4
142.5°	1281.0	1324.4	1367.8	1378.6	1479.3	1613.4	1680.5	1778.8	1975.5	2123.0	2146.3
145°	1333.3	1371.1	1408.9	1418.4	1502.0	1613.4	1669.1	1749.5	1910.4	2031.1	2048.8
147.5°	1385.5	1422.3	1459.1	1468.3	1535.3	1624.5	1669.1	1732.4	1858.9	1953.9	1968.5
150°	1419.5	1452.8	1486.1	1494.4	1552.6	1630.3	1669.1	1722.6	1829.5	1909.7	1921.5
152.5°	1454.7	1479.9	1505.2	1511.5	1564.0	1634.1	1669.1	1714.8	1806.0	1874.5	1883.4
155°	1506.9	1525.6	1544.2	1548.8	1589.0	1642.3	1669.1	1705.4	1778.1	1832.6	1838.5
157.5°	1545.5	1563.7	1581.8	1586.3	1613.9	1650.7	1669.1	1697.4	1753.9	1796.3	1800.4
160°	1571.6	1585.7	1599.8	1603.3	1625.2	1654.4	1669.1	1693.3	1741.8	1778.1	1780.4
162.5°	1597.7	1608.2	1618.9	1621.5	1637.3	1658.5	1669.1	1689.6	1730.4	1761.1	1763.3
165°	1626.0	1635.5	1645.2	1647.5	1654.7	1664.3	1669.1	1683.7	1713.0	1735.0	1737.3
167.5°	1652.1	1656.6	1661.2	1662.4	1668.4	1676.5	1680.5	1690.0	1709.2	1723.6	1724.6
170°	1669.1	1673.6	1678.2	1679.4	1679.7	1680.2	1680.5	1690.0	1709.2	1723.6	1723.6
172.5°	1678.2	1679.2	1680.2	1680.5	1680.5	1680.5	1680.5	1688.0	1703.1	1714.5	1713.6
175°	1690.7	1690.7	1690.7	1690.7	1687.3	1682.7	1680.5	1685.3	1694.8	1702.0	1702.0
177.5°	1690.7	1690.7	1690.7	1690.7	1688.0	1684.5	1682.7	1686.6	1694.1	1699.7	1698.7
180°	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	379.4	379.4
2.5°	405.1	402.6
5°	520.9	523.4
7.5°	701.5	700.3
10°	872.3	883.3
12.5°	996.8	999.2
15°	1072.5	1077.4
17.5°	1101.8	1102.9
20°	1102.9	1100.5
22.5°	1089.6	1087.1
25°	1073.6	1072.5
27.5°	1059.0	1060.3
30°	1052.9	1056.6
32.5°	1052.9	1059.0
35°	1055.4	1061.5
37.5°	1054.2	1061.5
40°	1049.3	1057.8
42.5°	1035.9	1042.0
45°	1015.2	1022.4
47.5°	988.2	993.1
50°	954.1	959.0
52.5°	911.4	912.6
55°	860.2	865.1
57.5°	805.3	806.5
60°	744.3	747.9
62.5°	679.6	679.6
65°	611.3	613.7
67.5°	540.5	546.6
70°	468.6	469.7
72.5°	397.8	397.8
75°	324.6	325.7
77.5°	255.0	255.0
80°	189.1	190.3
82.5°	130.5	133.0
85°	81.8	81.8
87.5°	37.8	34.2
90°	43.1	43.1
92.5°	172.7	138.4
95°	602.0	498.1
97.5°	1442.4	1244.7
100°	2078.2	1842.7
102.5°	2703.7	2502.0
105°	3501.2	3392.8
107.5°	4023.5	4049.7
110°	4222.7	4335.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4240.5	4413.9
115°	4128.0	4368.5
117.5°	3889.6	4156.4
120°	3697.5	3956.6
122.5°	3510.4	3766.1
125°	3243.5	3479.0
127.5°	3003.4	3202.1
130°	2862.0	3045.6
132.5°	2733.6	2898.0
135°	2557.7	2699.4
137.5°	2416.6	2532.6
140°	2319.8	2428.3
142.5°	2239.6	2332.9
145°	2119.4	2190.0
147.5°	2027.0	2085.5
150°	1969.0	2016.4
152.5°	1919.2	1955.1
155°	1862.2	1885.9
157.5°	1817.0	1833.6
160°	1790.1	1799.6
162.5°	1772.3	1781.4
165°	1747.0	1756.5
167.5°	1728.7	1732.7
170°	1723.6	1723.6
172.5°	1710.1	1706.6
175°	1702.0	1702.0
177.5°	1694.7	1690.7
180°	1690.7	1690.7



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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	0.00	0.06	0.56	1.21	2.84	12.57	13.24	13.74	14.39	16.02
	3H	0.08	0.68	1.26	1.84	3.48	14.40	14.99	15.57	16.16	17.80
	4H	0.37	0.94	1.56	2.10	3.75	15.03	15.60	16.22	16.76	18.41
	6H	0.61	1.13	1.80	2.30	3.96	15.45	15.97	16.64	17.14	18.80
	8H	0.68	1.17	1.87	2.35	4.00	15.57	16.06	16.76	17.24	18.89
	12H	0.69	1.16	1.88	2.33	4.00	15.63	16.10	16.83	17.27	18.95
4H	2H	6.59	7.15	7.78	8.31	9.96	12.82	13.39	14.01	14.55	16.20
	3H	8.13	8.61	9.33	9.80	11.46	14.85	15.32	16.04	16.51	18.17
	4H	8.22	8.66	9.42	9.83	11.51	15.61	16.05	16.80	17.22	18.90
	6H	8.22	8.59	9.42	9.79	11.46	16.14	16.51	17.34	17.71	19.37
	8H	8.19	8.54	9.39	9.73	11.41	16.29	16.64	17.49	17.83	19.51
	12H	8.14	8.45	9.35	9.65	11.34	16.38	16.69	17.59	17.89	19.58
8H	4H	9.65	10.00	10.85	11.19	12.87	15.65	16.00	16.85	17.19	18.87
	6H	9.88	10.17	11.10	11.40	13.08	16.27	16.56	17.49	17.79	19.47
	8H	9.90	10.15	11.12	11.35	13.06	16.49	16.74	17.71	17.95	19.65
	12H	9.85	10.07	11.08	11.28	13.01	16.62	16.84	17.85	18.05	19.78
12H	4H	9.78	10.10	11.00	11.30	12.99	15.59	15.91	16.81	17.11	18.80
	6H	10.14	10.39	11.36	11.59	13.30	16.25	16.50	17.47	17.71	19.41
	8H	10.20	10.42	11.42	11.62	13.35	16.47	16.69	17.70	17.90	19.63