

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: P938266

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938266
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-93050-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

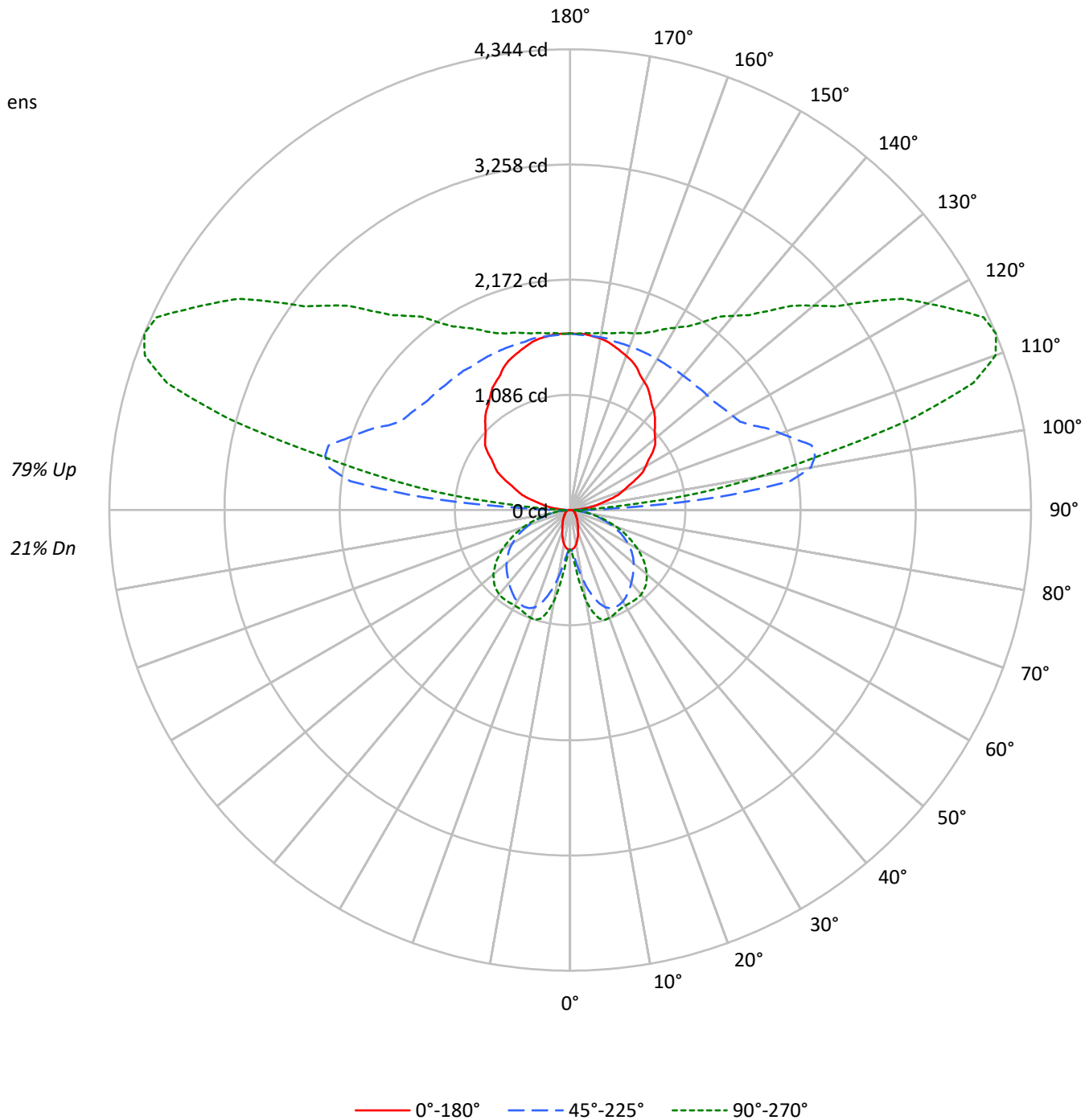
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13683.1 lumens
Efficiency: N/A
Efficacy: 123.0 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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CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-8-3500K

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°	1732	1732	1732
5°	1693	2003	2329
10°	1535	2919	3861
15°	1305	3814	4663
20°	1062	4420	4751
25°	886	4625	4655
30°	747	4654	4647
35°	660	4577	4766
40°	576	4476	4891
45°	522	4403	4910
50°	478	4337	4829
55°	459	4240	4614
60°	470	4054	4276
65°	489	3771	3813
70°	521	3288	3220
75°	577	2681	2513
80°	629	1859	1693
85°	559	987	867

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4910 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	0.4
10°-20°	214.1	1.6
20°-30°	374.5	2.7
30°-40°	482.1	3.5
40°-50°	538.5	3.9
50°-60°	515.8	3.8
60°-70°	408.8	3.0
70°-80°	240.3	1.8
80°-90°	73.1	0.5
90°-100°	811.2	5.9
100°-110°	2132.6	15.6
110°-120°	2211.2	16.2
120°-130°	1773.7	13.0
130°-140°	1391.7	10.2
140°-150°	1068.2	7.8
150°-160°	769.3	5.6
160°-170°	470.7	3.4
170°-180°	159.0	1.2
0°-30°	636.9	4.7
0°-40°	1119.0	8.2
0°-60°	2173.3	15.9
0°-90°	2895.5	21.2
90°-120°	5155.0	37.7
90°-150°	9388.5	68.6
90°-180°	10788.0	78.8
0°-180°	13683.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	373	373	373	373	373	
5°	364	390	440	497	515	34
15°	273	503	848	1028	1060	76
25°	174	570	1010	1054	1056	80
35°	118	545	951	1005	1045	73
45°	80	435	841	963	1006	62
55°	58	276	713	829	851	53
65°	46	146	530	596	604	45
75°	34	90	291	319	321	35
85°	12	28	72	79	80	13
90°	11	31	85	42	42	10
95°	107	420	1397	720	490	119
105°	384	582	2358	3580	3339	407
115°	682	829	1889	3767	4300	674
125°	949	1064	1718	2903	3424	843
135°	1131	1245	1664	2343	2657	875
145°	1312	1396	1643	1999	2156	822
155°	1483	1524	1643	1804	1856	681
165°	1600	1622	1643	1708	1729	452
175°	1664	1664	1654	1675	1675	158
180°	1664	1664	1664	1664	1664	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4
2.5°	373.4	373.4	375.9	377.1	379.4	380.7	383.1	385.5	392.7	393.8	396.3
5°	363.9	368.7	384.3	390.3	407.1	429.9	439.5	455.1	487.6	497.2	503.2
7.5°	349.4	360.3	398.7	408.3	450.3	510.3	535.6	569.2	620.8	646.1	666.5
10°	326.6	349.4	417.9	440.8	509.2	600.4	647.3	694.1	772.1	806.9	820.2
12.5°	301.5	338.6	438.3	469.5	568.0	701.3	757.8	809.4	898.3	945.1	952.3
15°	272.6	323.0	457.5	503.2	630.5	785.4	847.9	911.4	994.3	1027.9	1036.3
17.5°	247.4	311.0	475.6	523.6	678.5	861.0	924.7	977.5	1044.7	1067.6	1073.6
20°	216.1	291.8	487.6	550.0	729.0	916.3	977.5	1018.3	1064.0	1078.4	1080.8
22.5°	193.3	271.4	494.7	559.6	762.5	949.9	1001.5	1034.0	1065.2	1070.0	1071.2
25°	174.1	248.5	493.6	570.4	791.4	970.3	1009.9	1034.0	1052.0	1054.4	1054.4
27.5°	156.1	223.4	488.8	572.8	813.0	975.1	1006.3	1023.2	1031.6	1036.3	1036.3
30°	140.5	199.4	476.8	568.0	822.6	970.3	995.5	1003.9	1012.3	1019.6	1023.2
32.5°	128.5	176.6	458.8	558.4	823.8	958.3	976.3	981.1	993.1	1009.9	1015.9
35°	117.6	153.7	438.3	545.2	816.6	939.1	951.1	955.9	979.9	1005.2	1013.5
37.5°	106.9	136.9	411.9	522.4	805.8	916.3	924.7	933.1	970.3	1000.3	1009.9
40°	96.1	122.5	380.7	497.2	788.9	888.7	895.8	909.1	958.3	993.1	1002.7
42.5°	87.7	110.5	347.0	470.8	767.4	857.4	868.3	887.4	943.9	981.1	991.9
45°	80.5	98.5	311.0	434.7	739.7	825.0	840.6	867.0	927.1	963.1	972.7
47.5°	73.2	90.1	273.8	397.5	709.7	792.6	813.0	843.0	904.3	939.1	947.5
50°	67.2	81.7	236.5	357.9	677.3	757.8	781.8	813.0	875.4	907.8	918.7
52.5°	62.4	74.5	201.7	318.2	640.1	721.7	749.4	781.8	840.6	871.9	879.0
55°	57.7	68.5	171.7	276.2	601.6	683.3	713.3	744.5	802.2	828.6	833.4
57.5°	55.2	63.7	146.5	236.5	560.8	640.1	673.7	702.6	756.5	777.0	781.8
60°	51.7	60.1	127.3	203.0	516.4	599.2	628.1	656.9	702.6	719.3	723.0
62.5°	48.1	57.7	112.9	170.6	470.8	551.2	580.0	606.5	644.9	656.9	661.7
65°	45.7	55.2	102.1	146.5	423.9	500.7	529.6	552.4	583.7	595.7	598.1
67.5°	43.2	52.8	93.6	126.1	377.1	450.3	471.9	493.6	517.6	529.6	530.7
70°	39.7	50.4	86.5	111.6	329.0	392.7	410.7	433.5	452.8	458.8	462.3
72.5°	37.2	46.8	81.7	100.9	279.8	337.4	354.3	367.4	384.3	390.3	390.3
75°	33.7	42.0	76.8	90.1	229.4	276.2	290.6	303.8	317.0	319.4	315.9
77.5°	30.0	37.2	66.1	75.7	179.0	218.5	230.5	237.8	248.5	251.0	252.2
80°	25.2	32.4	51.7	58.8	129.7	160.9	169.3	175.3	185.0	185.0	187.3
82.5°	19.2	25.2	37.2	42.0	87.7	110.5	117.6	121.3	127.3	127.3	127.3
85°	12.0	15.6	24.0	27.6	52.8	67.2	72.1	73.2	78.1	79.2	79.2
87.5°	6.0	8.4	15.6	16.8	27.6	34.8	34.8	37.2	37.2	36.0	34.8
90°	11.2	20.1	29.0	31.2	49.2	73.0	84.9	75.5	56.6	42.4	42.4
92.5°	44.7	120.6	196.6	215.6	303.1	419.7	478.0	418.9	300.8	212.2	203.8
95°	107.3	246.2	385.2	419.9	745.6	1179.9	1397.1	1246.7	946.0	720.4	694.8
97.5°	185.4	308.0	430.6	461.3	1004.5	1728.7	2090.7	1995.7	1805.6	1663.0	1614.3
100°	245.7	356.9	468.1	495.9	1098.6	1902.2	2304.0	2311.0	2324.9	2335.2	2277.3
102.5°	297.1	400.8	504.5	530.5	1141.8	1956.8	2364.3	2485.5	2727.7	2909.3	2859.7
105°	384.2	472.0	559.9	581.9	1173.8	1963.0	2357.6	2629.2	3172.2	3579.5	3552.8
107.5°	473.5	555.5	637.3	657.8	1179.8	1875.7	2223.6	2602.3	3359.8	3927.9	3934.4
110°	533.9	607.8	681.8	700.2	1170.8	1798.2	2112.0	2535.3	3382.1	4017.3	4045.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	593.1	663.5	734.0	751.6	1171.2	1730.5	2010.2	2443.6	3310.2	3960.2	4002.9
115°	682.4	747.4	812.4	828.7	1182.0	1653.0	1888.6	2306.0	3140.8	3767.0	3826.2
117.5°	770.6	829.7	888.8	903.5	1203.9	1604.5	1804.8	2181.5	2935.0	3500.1	3565.8
120°	822.0	877.6	933.2	947.1	1221.8	1588.1	1771.3	2115.5	2804.0	3320.4	3384.1
122.5°	872.2	928.3	984.4	998.5	1247.5	1579.6	1745.6	2055.5	2675.6	3140.5	3203.4
125°	949.3	1000.4	1051.5	1064.3	1282.1	1572.4	1717.7	1981.0	2507.6	2902.6	2960.5
127.5°	1011.9	1063.5	1115.1	1128.0	1316.7	1568.4	1694.2	1920.3	2372.5	2711.6	2760.5
130°	1045.4	1101.0	1156.6	1170.4	1342.1	1570.8	1685.2	1886.5	2289.1	2591.0	2636.2
132.5°	1080.0	1135.6	1191.2	1205.1	1362.6	1572.5	1677.5	1857.6	2218.0	2488.3	2528.7
135°	1131.3	1182.0	1232.7	1245.3	1384.9	1571.0	1664.0	1815.0	2116.8	2343.1	2377.9
137.5°	1183.9	1234.0	1284.1	1296.6	1418.4	1580.7	1661.9	1789.5	2044.5	2235.9	2264.4
140°	1227.4	1273.6	1319.7	1331.2	1438.9	1582.3	1654.0	1764.2	1984.6	2149.9	2176.6
142.5°	1260.9	1303.6	1346.3	1356.9	1456.0	1588.0	1654.0	1750.8	1944.3	2089.6	2112.5
145°	1312.3	1349.5	1386.7	1396.1	1478.3	1588.0	1642.8	1722.0	1880.3	1999.1	2016.5
147.5°	1363.6	1399.9	1436.2	1445.2	1511.1	1598.9	1642.8	1705.1	1829.7	1923.1	1937.5
150°	1397.1	1429.9	1462.7	1470.8	1528.1	1604.6	1642.8	1695.5	1800.7	1879.6	1891.3
152.5°	1431.8	1456.6	1481.5	1487.7	1539.4	1608.3	1642.8	1687.8	1777.6	1845.0	1853.7
155°	1483.2	1501.5	1519.9	1524.4	1563.9	1616.5	1642.8	1678.5	1750.1	1803.7	1809.5
157.5°	1521.1	1539.0	1556.9	1561.3	1588.5	1624.7	1642.8	1670.7	1726.3	1768.0	1772.1
160°	1546.8	1560.7	1574.6	1578.1	1599.7	1628.4	1642.8	1666.6	1714.3	1750.1	1752.4
162.5°	1572.5	1582.9	1593.4	1596.0	1611.6	1632.4	1642.8	1663.0	1703.2	1733.3	1735.6
165°	1600.4	1609.8	1619.3	1621.6	1628.7	1638.1	1642.8	1657.2	1686.1	1707.6	1710.0
167.5°	1626.1	1630.5	1635.0	1636.2	1642.1	1650.1	1654.0	1663.4	1682.3	1696.4	1697.4
170°	1642.8	1647.3	1651.8	1652.9	1653.3	1653.7	1654.0	1663.4	1682.3	1696.4	1696.4
172.5°	1651.8	1652.7	1653.7	1654.0	1654.0	1654.0	1654.0	1661.4	1676.3	1687.5	1686.6
175°	1664.0	1664.0	1664.0	1664.0	1660.7	1656.2	1654.0	1658.7	1668.1	1675.2	1675.2
177.5°	1664.0	1664.0	1664.0	1664.0	1661.4	1657.9	1656.2	1660.0	1667.4	1673.0	1672.0
180°	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	373.4	373.4
2.5°	398.7	396.3
5°	512.7	515.2
7.5°	690.5	689.3
10°	858.6	869.4
12.5°	981.1	983.5
15°	1055.6	1060.4
17.5°	1084.4	1085.6
20°	1085.6	1083.1
22.5°	1072.4	1070.0
25°	1056.7	1055.6
27.5°	1042.3	1043.6
30°	1036.3	1040.0
32.5°	1036.3	1042.3
35°	1038.7	1044.7
37.5°	1037.6	1044.7
40°	1032.7	1041.2
42.5°	1019.6	1025.6
45°	999.2	1006.3
47.5°	972.7	977.5
50°	939.1	943.9
52.5°	897.0	898.3
55°	846.6	851.4
57.5°	792.6	793.8
60°	732.5	736.1
62.5°	668.9	668.9
65°	601.6	604.1
67.5°	532.0	538.0
70°	461.2	462.3
72.5°	391.5	391.5
75°	319.4	320.6
77.5°	251.0	251.0
80°	186.1	187.3
82.5°	128.5	130.9
85°	80.5	80.5
87.5°	37.2	33.7
90°	42.4	42.4
92.5°	170.0	136.3
95°	592.5	490.3
97.5°	1419.7	1225.1
100°	2045.5	1813.7
102.5°	2661.1	2462.6
105°	3446.1	3339.3
107.5°	3960.1	3985.9
110°	4156.2	4267.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4173.7	4344.4
115°	4063.0	4299.7
117.5°	3828.4	4090.9
120°	3639.3	3894.3
122.5°	3455.1	3706.8
125°	3192.4	3424.2
127.5°	2956.1	3151.7
130°	2816.9	2997.6
132.5°	2690.5	2852.4
135°	2517.4	2656.9
137.5°	2378.6	2492.7
140°	2283.3	2390.0
142.5°	2204.3	2296.2
145°	2086.0	2155.5
147.5°	1995.1	2052.7
150°	1938.0	1984.6
152.5°	1889.0	1924.3
155°	1832.9	1856.2
157.5°	1788.4	1804.8
160°	1761.9	1771.3
162.5°	1744.4	1753.4
165°	1719.4	1728.8
167.5°	1701.5	1705.4
170°	1696.4	1696.4
172.5°	1683.2	1679.7
175°	1675.2	1675.2
177.5°	1668.0	1664.0
180°	1664.0	1664.0



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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	0.00	0.51	1.16	2.79	12.52	13.18	13.69	14.34	15.97
	3H	0.03	0.62	1.20	1.79	3.43	14.34	14.94	15.52	16.10	17.74
	4H	0.32	0.88	1.50	2.05	3.69	14.98	15.55	16.16	16.71	18.36
	6H	0.56	1.08	1.75	2.24	3.90	15.40	15.92	16.59	17.08	18.74
	8H	0.62	1.12	1.81	2.29	3.94	15.51	16.01	16.70	17.19	18.84
	12H	0.63	1.10	1.83	2.27	3.95	15.57	16.04	16.77	17.22	18.89
4H	2H	6.53	7.10	7.72	8.26	9.91	12.77	13.33	13.96	14.50	16.14
	3H	8.08	8.55	9.27	9.74	11.40	14.80	15.27	15.99	16.46	18.12
	4H	8.17	8.60	9.36	9.78	11.45	15.55	15.99	16.75	17.16	18.84
	6H	8.16	8.54	9.36	9.74	11.40	16.08	16.45	17.28	17.65	19.32
	8H	8.14	8.48	9.33	9.67	11.36	16.24	16.59	17.44	17.77	19.46
	12H	8.08	8.40	9.30	9.60	11.29	16.32	16.64	17.53	17.84	19.53
8H	4H	9.59	9.94	10.79	11.13	12.81	15.60	15.94	16.79	17.13	18.82
	6H	9.83	10.11	11.04	11.34	13.03	16.22	16.50	17.43	17.74	19.42
	8H	9.84	10.09	11.06	11.30	13.00	16.43	16.68	17.66	17.89	19.59
	12H	9.80	10.02	11.03	11.22	12.96	16.57	16.79	17.79	17.99	19.72
12H	4H	9.73	10.04	10.94	11.24	12.93	15.54	15.86	16.75	17.05	18.74
	6H	10.08	10.33	11.30	11.54	13.24	16.20	16.45	17.42	17.65	19.36
	8H	10.14	10.36	11.37	11.57	13.30	16.42	16.64	17.64	17.84	19.57