

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: P938245

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938245
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-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

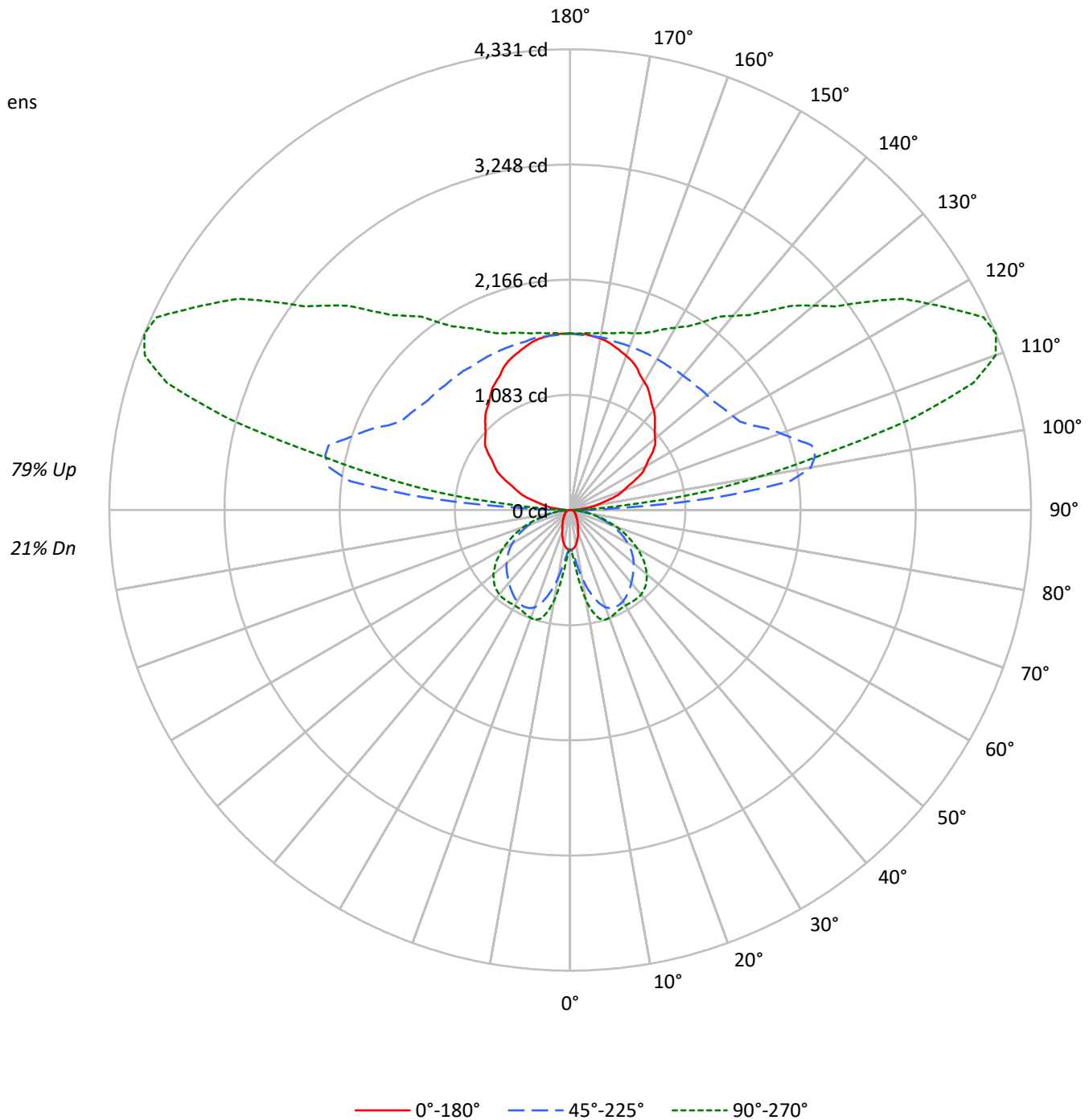
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13641.9 lumens
Efficiency: N/A
Efficacy: 122.7 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-92765-1D-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°	1727	1727	1727
5°	1688	1997	2322
10°	1531	2911	3850
15°	1301	3803	4649
20°	1059	4407	4737
25°	884	4611	4641
30°	745	4640	4633
35°	659	4563	4752
40°	574	4463	4876
45°	520	4390	4895
50°	477	4324	4814
55°	457	4227	4601
60°	468	4042	4264
65°	486	3759	3801
70°	518	3278	3211
75°	575	2673	2505
80°	629	1854	1688
85°	559	984	864

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4895 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	0.4
10°-20°	213.5	1.6
20°-30°	373.4	2.7
30°-40°	480.7	3.5
40°-50°	536.9	3.9
50°-60°	514.2	3.8
60°-70°	407.5	3.0
70°-80°	239.6	1.8
80°-90°	72.9	0.5
90°-100°	808.7	5.9
100°-110°	2126.2	15.6
110°-120°	2204.6	16.2
120°-130°	1768.3	13.0
130°-140°	1387.5	10.2
140°-150°	1065.0	7.8
150°-160°	767.0	5.6
160°-170°	469.3	3.4
170°-180°	158.5	1.2
0°-30°	635.0	4.7
0°-40°	1115.7	8.2
0°-60°	2166.8	15.9
0°-90°	2886.8	21.2
90°-120°	5139.5	37.7
90°-150°	9360.3	68.6
90°-180°	10755.0	78.8
0°-180°	13641.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	363	389	438	496	514	33
15°	272	502	845	1025	1057	76
25°	174	569	1007	1051	1052	80
35°	117	544	948	1002	1042	73
45°	80	433	838	960	1003	62
55°	58	275	711	826	849	52
65°	46	146	528	594	602	45
75°	34	90	290	318	320	35
85°	12	28	72	79	80	13
90°	11	31	85	42	42	10
95°	107	419	1393	718	489	119
105°	383	580	2350	3569	3329	406
115°	680	826	1883	3756	4287	672
125°	946	1061	1712	2894	3414	840
135°	1128	1242	1659	2336	2649	873
145°	1308	1392	1638	1993	2149	820
155°	1479	1520	1638	1798	1851	679
165°	1596	1617	1638	1702	1724	450
175°	1659	1659	1649	1670	1670	157
180°	1659	1659	1659	1659	1659	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	372.3	372.3	372.3	372.3	372.3	372.3	372.3	372.3	372.3	372.3	372.3
2.5°	372.3	372.3	374.7	376.0	378.3	379.5	382.0	384.4	391.5	392.7	395.1
5°	362.8	367.6	383.1	389.1	405.9	428.6	438.2	453.7	486.1	495.7	501.7
7.5°	348.4	359.2	397.5	407.0	449.0	508.8	534.0	567.5	618.9	644.1	664.5
10°	325.6	348.4	416.7	439.4	507.6	598.6	645.4	692.0	769.8	804.5	817.7
12.5°	300.5	337.6	437.0	468.1	566.3	699.2	755.5	806.9	895.6	942.2	949.4
15°	271.8	322.1	456.1	501.7	628.6	783.0	845.3	908.7	991.3	1024.8	1033.2
17.5°	246.6	310.1	474.2	522.0	676.4	858.4	921.9	974.6	1041.6	1064.4	1070.3
20°	215.5	290.9	486.1	548.3	726.8	913.5	974.6	1015.3	1060.8	1075.2	1077.6
22.5°	192.7	270.6	493.3	557.9	760.2	947.1	998.5	1030.9	1062.0	1066.8	1067.9
25°	173.6	247.8	492.1	568.7	789.0	967.4	1006.9	1030.9	1048.8	1051.2	1051.2
27.5°	155.7	222.7	487.3	571.1	810.6	972.2	1003.3	1020.1	1028.5	1033.2	1033.2
30°	140.1	198.8	475.3	566.3	820.1	967.4	992.5	1000.9	1009.3	1016.5	1020.1
32.5°	128.1	176.0	457.4	556.7	821.3	955.4	973.4	978.1	990.1	1006.9	1012.9
35°	117.3	153.3	437.0	543.5	814.2	936.3	948.2	953.1	977.0	1002.1	1010.4
37.5°	106.6	136.5	410.7	520.8	803.4	913.5	921.9	930.3	967.4	997.3	1006.9
40°	95.8	122.1	379.5	495.7	786.6	886.0	893.2	906.4	955.4	990.1	999.7
42.5°	87.4	110.1	346.0	469.3	765.1	854.9	865.7	884.8	941.1	978.1	988.9
45°	80.2	98.2	310.1	433.4	737.5	822.5	838.1	864.4	924.3	960.2	969.7
47.5°	73.0	89.8	273.0	396.3	707.6	790.2	810.6	840.5	901.5	936.3	944.7
50°	67.0	81.4	235.8	356.8	675.3	755.5	779.4	810.6	872.8	905.1	915.9
52.5°	62.2	74.3	201.1	317.2	638.1	719.5	747.1	779.4	838.1	869.2	876.4
55°	57.5	68.3	171.2	275.4	599.8	681.2	711.2	742.3	799.8	826.1	830.9
57.5°	55.1	63.5	146.0	235.8	559.1	638.1	671.7	700.4	754.3	774.6	779.4
60°	51.5	59.9	126.9	202.4	514.9	597.4	626.2	654.9	700.4	717.1	720.8
62.5°	47.9	57.5	112.6	170.0	469.3	549.6	578.2	604.7	643.0	654.9	659.7
65°	45.5	55.1	101.8	146.0	422.7	499.2	528.0	550.7	581.9	593.9	596.3
67.5°	43.1	52.7	93.4	125.7	376.0	449.0	470.5	492.1	516.0	528.0	529.1
70°	39.5	50.3	86.2	111.3	328.0	391.5	409.4	432.2	451.4	457.4	460.9
72.5°	37.1	46.7	81.4	100.6	278.9	336.4	353.2	366.3	383.1	389.1	389.1
75°	33.6	41.9	76.6	89.8	228.7	275.4	289.7	302.9	316.1	318.5	314.9
77.5°	29.9	37.1	65.9	75.4	178.4	217.9	229.8	237.1	247.8	250.2	251.5
80°	25.2	32.3	51.5	58.6	129.3	160.4	168.8	174.8	184.4	184.4	186.7
82.5°	19.2	25.2	37.1	41.9	87.4	110.1	117.3	121.0	126.9	126.9	126.9
85°	12.0	15.5	23.9	27.5	52.7	67.0	71.9	73.0	77.8	79.0	79.0
87.5°	6.0	8.4	15.5	16.8	27.5	34.7	34.7	37.1	37.1	35.9	34.7
90°	11.2	20.1	28.9	31.2	49.0	72.7	84.6	75.2	56.4	42.3	42.3
92.5°	44.5	120.2	196.0	214.9	302.2	418.5	476.6	417.7	299.9	211.6	203.2
95°	106.9	245.5	384.0	418.6	743.4	1176.4	1392.9	1243.0	943.1	718.2	692.7
97.5°	184.9	307.1	429.4	459.9	1001.4	1723.5	2084.4	1989.6	1800.1	1658.0	1609.5
100°	244.9	355.8	466.7	494.4	1095.3	1896.5	2297.1	2304.0	2317.9	2328.2	2270.5
102.5°	296.2	399.6	503.0	528.9	1138.4	1950.9	2357.2	2478.0	2719.5	2900.6	2851.1
105°	383.0	470.6	558.2	580.1	1170.2	1957.1	2350.5	2621.3	3162.6	3568.7	3542.1
107.5°	472.1	553.8	635.4	655.8	1176.2	1870.0	2216.9	2594.5	3349.7	3916.1	3922.5
110°	532.3	606.0	679.7	698.1	1167.3	1792.8	2105.6	2527.7	3372.0	4005.2	4032.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	591.3	661.5	731.8	749.4	1167.6	1725.3	2004.2	2436.2	3300.3	3948.3	3990.9
115°	680.4	745.2	810.0	826.2	1178.4	1648.0	1882.9	2299.0	3131.4	3755.7	3814.7
117.5°	768.3	827.2	886.1	900.8	1200.3	1599.7	1799.3	2175.0	2926.2	3489.6	3555.0
120°	819.5	874.9	930.4	944.2	1218.2	1583.3	1766.0	2109.2	2795.6	3310.4	3373.9
122.5°	869.6	925.6	981.4	995.4	1243.8	1574.8	1740.3	2049.4	2667.5	3131.0	3193.8
125°	946.4	997.4	1048.4	1061.1	1278.2	1567.7	1712.5	1975.0	2500.1	2893.9	2951.6
127.5°	1008.8	1060.3	1111.8	1124.6	1312.8	1563.7	1689.1	1914.5	2365.4	2703.5	2752.2
130°	1042.2	1097.7	1153.1	1166.9	1338.0	1566.1	1680.2	1880.8	2282.3	2583.2	2628.3
132.5°	1076.8	1132.2	1187.6	1201.5	1358.5	1567.8	1672.4	1852.0	2211.3	2480.8	2521.1
135°	1127.9	1178.4	1229.0	1241.5	1380.7	1566.3	1659.0	1809.5	2110.4	2336.1	2370.8
137.5°	1180.3	1230.3	1280.2	1292.7	1414.1	1575.9	1656.9	1784.1	2038.4	2229.1	2257.6
140°	1223.7	1269.8	1315.7	1327.2	1434.5	1577.5	1649.0	1758.9	1978.7	2143.4	2170.0
142.5°	1257.1	1299.7	1342.2	1352.9	1451.6	1583.2	1649.0	1745.5	1938.5	2083.3	2106.1
145°	1308.3	1345.4	1382.6	1391.9	1473.9	1583.2	1637.9	1716.8	1874.7	1993.1	2010.4
147.5°	1359.5	1395.7	1431.9	1440.9	1506.6	1594.1	1637.9	1700.0	1824.2	1917.3	1931.7
150°	1392.9	1425.6	1458.3	1466.4	1523.5	1599.8	1637.9	1690.4	1795.2	1874.0	1885.6
152.5°	1427.5	1452.2	1477.0	1483.2	1534.8	1603.5	1637.9	1682.7	1772.2	1839.4	1848.2
155°	1478.7	1497.0	1515.3	1519.9	1559.2	1611.6	1637.9	1673.5	1744.8	1798.3	1804.1
157.5°	1516.6	1534.4	1552.2	1556.6	1583.7	1619.8	1637.9	1665.6	1721.1	1762.7	1766.8
160°	1542.2	1556.0	1569.9	1573.3	1594.8	1623.5	1637.9	1661.6	1709.2	1744.8	1747.1
162.5°	1567.8	1578.2	1588.6	1591.2	1606.7	1627.5	1637.9	1658.0	1698.0	1728.1	1730.3
165°	1595.6	1604.9	1614.4	1616.7	1623.8	1633.1	1637.9	1652.2	1681.0	1702.5	1704.8
167.5°	1621.2	1625.6	1630.1	1631.3	1637.2	1645.1	1649.0	1658.4	1677.2	1691.3	1692.3
170°	1637.9	1642.3	1646.8	1648.0	1648.3	1648.8	1649.0	1658.4	1677.2	1691.3	1691.3
172.5°	1646.8	1647.8	1648.8	1649.0	1649.0	1649.0	1649.0	1656.4	1671.3	1682.4	1681.5
175°	1659.0	1659.0	1659.0	1659.0	1655.7	1651.3	1649.0	1653.8	1663.1	1670.2	1670.2
177.5°	1659.0	1659.0	1659.0	1659.0	1656.4	1653.0	1651.3	1655.0	1662.4	1667.9	1667.0
180°	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	372.3	372.3
2.5°	397.5	395.1
5°	511.2	513.6
7.5°	688.4	687.2
10°	856.0	866.8
12.5°	978.1	980.5
15°	1052.4	1057.2
17.5°	1081.1	1082.3
20°	1082.3	1079.9
22.5°	1069.2	1066.8
25°	1053.6	1052.4
27.5°	1039.2	1040.4
30°	1033.2	1036.9
32.5°	1033.2	1039.2
35°	1035.6	1041.6
37.5°	1034.5	1041.6
40°	1029.6	1038.0
42.5°	1016.5	1022.5
45°	996.2	1003.3
47.5°	969.7	974.6
50°	936.3	941.1
52.5°	894.3	895.6
55°	844.1	848.9
57.5°	790.2	791.4
60°	730.3	733.9
62.5°	666.9	666.9
65°	599.8	602.3
67.5°	530.4	536.4
70°	459.8	460.9
72.5°	390.3	390.3
75°	318.5	319.6
77.5°	250.2	250.2
80°	185.6	186.7
82.5°	128.1	130.5
85°	80.2	80.2
87.5°	37.1	33.6
90°	42.3	42.3
92.5°	169.5	135.9
95°	590.7	488.8
97.5°	1415.4	1221.5
100°	2039.4	1808.3
102.5°	2653.1	2455.2
105°	3435.7	3329.3
107.5°	3948.2	3973.9
110°	4143.7	4254.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4161.1	4331.3
115°	4050.8	4286.8
117.5°	3816.8	4078.6
120°	3628.3	3882.6
122.5°	3444.7	3695.6
125°	3182.8	3413.9
127.5°	2947.3	3142.2
130°	2808.5	2988.6
132.5°	2682.4	2843.8
135°	2509.9	2648.9
137.5°	2371.4	2485.2
140°	2276.4	2382.8
142.5°	2197.7	2289.3
145°	2079.7	2149.0
147.5°	1989.1	2046.5
150°	1932.2	1978.7
152.5°	1883.3	1918.5
155°	1827.4	1850.6
157.5°	1783.0	1799.3
160°	1756.6	1766.0
162.5°	1739.2	1748.1
165°	1714.3	1723.6
167.5°	1696.3	1700.3
170°	1691.3	1691.3
172.5°	1678.1	1674.6
175°	1670.2	1670.2
177.5°	1663.0	1659.0
180°	1659.0	1659.0



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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	0.49	1.15	2.78	12.51	13.17	13.67	14.33	15.96
	3H	0.02	0.61	1.19	1.78	3.42	14.33	14.93	15.51	16.09	17.73
	4H	0.31	0.87	1.49	2.04	3.68	14.97	15.53	16.15	16.70	18.34
	6H	0.55	1.07	1.74	2.23	3.89	15.39	15.91	16.58	17.07	18.73
	8H	0.61	1.11	1.80	2.28	3.94	15.50	16.00	16.69	17.18	18.83
	12H	0.62	1.09	1.82	2.26	3.94	15.56	16.03	16.76	17.21	18.88
4H	2H	6.52	7.09	7.71	8.25	9.90	12.76	13.32	13.95	14.49	16.13
	3H	8.07	8.54	9.26	9.73	11.39	14.78	15.26	15.98	16.44	18.11
	4H	8.15	8.59	9.35	9.77	11.44	15.54	15.98	16.74	17.15	18.83
	6H	8.15	8.53	9.35	9.72	11.39	16.07	16.44	17.27	17.64	19.31
	8H	8.12	8.47	9.32	9.66	11.35	16.23	16.58	17.43	17.76	19.45
	12H	8.07	8.39	9.29	9.59	11.28	16.31	16.63	17.52	17.83	19.51
8H	4H	9.58	9.93	10.78	11.12	12.80	15.59	15.93	16.78	17.12	18.81
	6H	9.81	10.10	11.03	11.33	13.01	16.21	16.49	17.42	17.72	19.41
	8H	9.83	10.08	11.05	11.29	12.99	16.42	16.67	17.64	17.88	19.58
	12H	9.79	10.01	11.01	11.21	12.95	16.56	16.78	17.78	17.98	19.71
12H	4H	9.72	10.03	10.93	11.23	12.92	15.53	15.85	16.74	17.04	18.73
	6H	10.07	10.32	11.29	11.53	13.23	16.19	16.44	17.41	17.64	19.35
	8H	10.13	10.35	11.36	11.56	13.29	16.41	16.63	17.63	17.83	19.56