

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: P938243

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938243
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-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

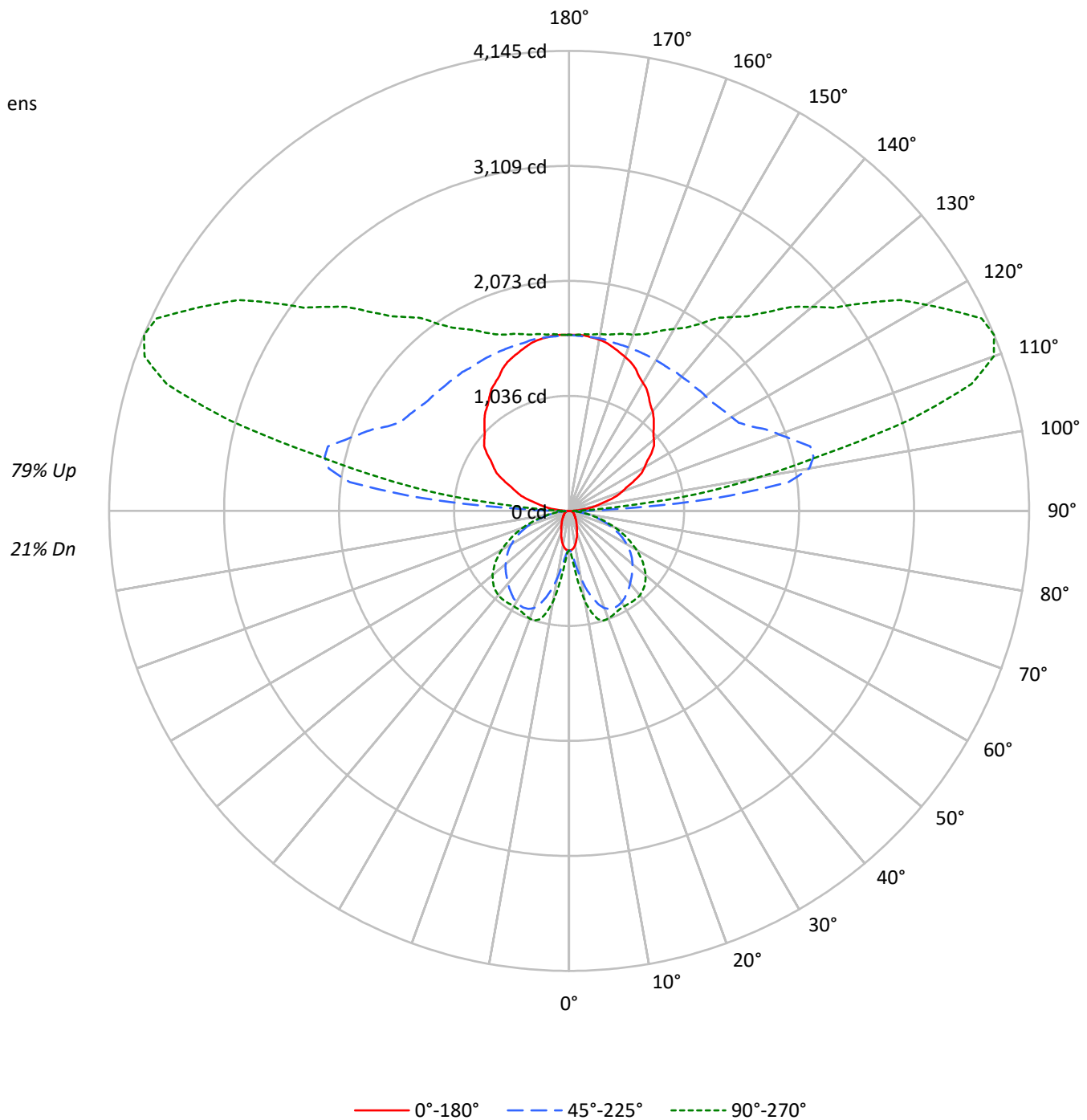
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13053.7 lumens
Efficiency: N/A
Efficacy: 117.4 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-8-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P938243

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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°	1653	1653	1653
5°	1615	1911	2222
10°	1465	2785	3683
15°	1245	3639	4448
20°	1013	4216	4533
25°	845	4413	4441
30°	713	4440	4433
35°	630	4366	4547
40°	549	4271	4666
45°	498	4200	4684
50°	456	4137	4607
55°	437	4045	4403
60°	448	3868	4080
65°	466	3597	3637
70°	496	3137	3073
75°	550	2557	2398
80°	601	1774	1615
85°	531	942	827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4684 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	0.4
10°-20°	204.3	1.6
20°-30°	357.3	2.7
30°-40°	459.9	3.5
40°-50°	513.7	3.9
50°-60°	492.0	3.8
60°-70°	390.0	3.0
70°-80°	229.3	1.8
80°-90°	69.8	0.5
90°-100°	773.9	5.9
100°-110°	2034.5	15.6
110°-120°	2109.5	16.2
120°-130°	1692.1	13.0
130°-140°	1327.7	10.2
140°-150°	1019.0	7.8
150°-160°	733.9	5.6
160°-170°	449.0	3.4
170°-180°	151.7	1.2
0°-30°	607.6	4.7
0°-40°	1067.6	8.2
0°-60°	2073.3	15.9
0°-90°	2762.4	21.2
90°-120°	4917.9	37.7
90°-150°	8956.7	68.6
90°-180°	10291.0	78.8
0°-180°	13053.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	356	356	356	356	356	
5°	347	372	419	474	492	32
15°	260	480	809	981	1012	72
25°	166	544	964	1006	1007	77
35°	112	520	907	959	997	70
45°	77	415	802	919	960	59
55°	55	264	680	790	812	50
65°	44	140	505	568	576	43
75°	32	86	277	305	306	34
85°	11	26	69	76	77	12
90°	11	30	81	40	40	10
95°	102	401	1333	687	468	114
105°	366	555	2249	3415	3186	389
115°	651	791	1802	3594	4102	643
125°	906	1015	1639	2769	3267	804
135°	1079	1188	1588	2235	2535	835
145°	1252	1332	1567	1907	2056	784
155°	1415	1454	1567	1721	1771	650
165°	1527	1547	1567	1629	1649	431
175°	1588	1588	1578	1598	1598	151
180°	1588	1588	1588	1588	1588	



TEST NUMBER: P938243

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	356.3	356.3	356.3	356.3	356.3	356.3	356.3	356.3	356.3	356.3	356.3
2.5°	356.3	356.3	358.6	359.8	362.0	363.2	365.5	367.8	374.6	375.7	378.0
5°	347.1	351.7	366.6	372.3	388.4	410.2	419.3	434.2	465.2	474.3	480.0
7.5°	333.4	343.7	380.3	389.5	429.6	486.9	510.9	543.1	592.3	616.3	635.8
10°	311.6	333.4	398.7	420.5	485.7	572.8	617.5	662.2	736.6	769.8	782.5
12.5°	287.6	323.0	418.2	447.9	541.9	669.0	722.9	772.1	856.9	901.6	908.5
15°	260.1	308.2	436.5	480.0	601.5	749.2	808.9	869.5	948.6	980.6	988.7
17.5°	236.0	296.7	453.7	499.5	647.3	821.4	882.1	932.5	996.7	1018.5	1024.2
20°	206.2	278.4	465.2	524.7	695.4	874.1	932.5	971.5	1015.0	1028.8	1031.1
22.5°	184.4	258.9	472.0	533.8	727.5	906.2	955.4	986.4	1016.2	1020.8	1021.9
25°	166.1	237.1	470.9	544.2	755.0	925.7	963.5	986.4	1003.6	1005.9	1005.9
27.5°	149.0	213.1	466.3	546.5	775.6	930.2	960.0	976.1	984.1	988.7	988.7
30°	134.0	190.2	454.8	541.9	784.8	925.7	949.7	957.7	965.8	972.7	976.1
32.5°	122.6	168.4	437.7	532.7	785.9	914.2	931.4	936.0	947.4	963.5	969.2
35°	112.2	146.7	418.2	520.1	779.1	895.9	907.3	912.0	934.8	958.9	966.9
37.5°	102.0	130.6	393.0	498.4	768.7	874.1	882.1	890.2	925.7	954.3	963.5
40°	91.6	116.8	363.2	474.3	752.7	847.8	854.6	867.3	914.2	947.4	956.6
42.5°	83.6	105.4	331.1	449.1	732.1	818.0	828.3	846.6	900.5	936.0	946.3
45°	76.8	94.0	296.7	414.7	705.7	787.1	801.9	827.1	884.4	918.8	927.9
47.5°	69.9	85.9	261.2	379.2	677.1	756.2	775.6	804.2	862.7	895.9	903.9
50°	64.1	77.9	225.7	341.4	646.1	722.9	745.8	775.6	835.2	866.1	876.4
52.5°	59.5	71.1	192.4	303.6	610.6	688.5	714.9	745.8	801.9	831.7	838.6
55°	55.0	65.3	163.8	263.5	574.0	651.9	680.5	710.3	765.3	790.5	795.1
57.5°	52.7	60.7	139.7	225.7	535.0	610.6	642.7	670.2	721.7	741.2	745.8
60°	49.3	57.3	121.5	193.6	492.7	571.7	599.2	626.7	670.2	686.2	689.7
62.5°	45.9	55.0	107.7	162.7	449.1	525.9	553.3	578.6	615.2	626.7	631.3
65°	43.6	52.7	97.4	139.7	404.4	477.7	505.2	527.0	556.8	568.3	570.6
67.5°	41.3	50.4	89.3	120.3	359.8	429.6	450.2	470.9	493.8	505.2	506.3
70°	37.8	48.1	82.5	106.5	313.9	374.6	391.8	413.6	431.9	437.7	441.1
72.5°	35.5	44.7	77.9	96.3	266.9	321.9	338.0	350.5	366.6	372.3	372.3
75°	32.1	40.1	73.3	85.9	218.8	263.5	277.2	289.8	302.4	304.8	301.3
77.5°	28.6	35.5	63.0	72.2	170.7	208.5	219.9	226.9	237.1	239.4	240.6
80°	24.1	30.9	49.3	56.1	123.8	153.5	161.5	167.2	176.5	176.5	178.7
82.5°	18.4	24.1	35.5	40.1	83.6	105.4	112.2	115.7	121.5	121.5	121.5
85°	11.4	14.9	22.9	26.3	50.4	64.1	68.8	69.9	74.5	75.6	75.6
87.5°	5.7	8.0	14.9	16.1	26.3	33.2	33.2	35.5	35.5	34.3	33.2
90°	10.7	19.2	27.7	29.8	46.9	69.6	81.0	72.0	54.0	40.5	40.5
92.5°	42.6	115.1	187.6	205.7	289.1	400.4	456.0	399.6	287.0	202.4	194.4
95°	102.3	234.9	367.4	400.6	711.3	1125.7	1332.9	1189.4	902.5	687.2	662.8
97.5°	176.9	293.8	410.8	440.0	958.2	1649.2	1994.6	1903.9	1722.5	1586.5	1540.1
100°	234.4	340.5	446.5	473.1	1048.1	1814.7	2198.0	2204.7	2217.9	2227.8	2172.6
102.5°	283.4	382.4	481.3	506.1	1089.3	1866.8	2255.6	2371.1	2602.2	2775.5	2728.2
105°	366.5	450.3	534.2	555.1	1119.8	1872.7	2249.2	2508.2	3026.3	3414.8	3389.4
107.5°	451.7	529.9	608.0	627.5	1125.5	1789.4	2121.3	2482.6	3205.3	3747.2	3753.4
110°	509.3	579.9	650.4	668.0	1116.9	1715.5	2014.8	2418.7	3226.6	3832.5	3859.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	565.8	633.0	700.2	717.0	1117.3	1650.9	1917.8	2331.2	3158.0	3778.1	3818.8
115°	651.0	713.0	775.0	790.6	1127.6	1577.0	1801.7	2199.9	2996.4	3593.7	3650.2
117.5°	735.1	791.5	847.9	862.0	1148.5	1530.7	1721.8	2081.2	2800.0	3339.1	3401.7
120°	784.2	837.2	890.3	903.5	1165.6	1515.1	1689.8	2018.2	2675.0	3167.6	3228.4
122.5°	832.1	885.6	939.1	952.5	1190.1	1506.9	1665.3	1961.0	2552.5	2996.0	3056.1
125°	905.6	954.4	1003.2	1015.4	1223.1	1500.1	1638.6	1889.8	2392.2	2769.1	2824.3
127.5°	965.3	1014.5	1063.8	1076.1	1256.2	1496.3	1616.3	1831.9	2263.4	2586.9	2633.5
130°	997.3	1050.3	1103.4	1116.6	1280.3	1498.6	1607.7	1799.7	2183.8	2471.8	2515.0
132.5°	1030.3	1083.4	1136.4	1149.7	1299.9	1500.2	1600.3	1772.1	2115.9	2373.8	2412.4
135°	1079.3	1127.6	1176.0	1188.0	1321.2	1498.7	1587.5	1731.5	2019.4	2235.3	2268.6
137.5°	1129.4	1177.2	1225.0	1236.9	1353.1	1508.0	1585.4	1707.1	1950.5	2133.0	2160.3
140°	1170.9	1215.0	1259.0	1270.0	1372.7	1509.5	1577.9	1683.1	1893.3	2051.0	2076.5
142.5°	1202.9	1243.6	1284.4	1294.5	1389.0	1515.0	1577.9	1670.2	1854.9	1993.4	2015.3
145°	1251.9	1287.4	1323.0	1331.8	1410.3	1515.0	1567.2	1642.7	1793.8	1907.2	1923.8
147.5°	1300.9	1335.5	1370.1	1378.7	1441.6	1525.4	1567.2	1626.7	1745.5	1834.7	1848.4
150°	1332.9	1364.1	1395.4	1403.2	1457.8	1530.8	1567.2	1617.5	1717.8	1793.2	1804.3
152.5°	1365.9	1389.6	1413.3	1419.2	1468.6	1534.4	1567.2	1610.1	1695.8	1760.1	1768.5
155°	1414.9	1432.5	1450.0	1454.3	1492.0	1542.1	1567.2	1601.3	1669.6	1720.7	1726.3
157.5°	1451.2	1468.2	1485.2	1489.5	1515.4	1550.0	1567.2	1593.8	1646.8	1686.6	1690.6
160°	1475.7	1488.9	1502.2	1505.5	1526.1	1553.5	1567.2	1590.0	1635.5	1669.6	1671.8
162.5°	1500.2	1510.1	1520.1	1522.6	1537.4	1557.3	1567.2	1586.5	1624.8	1653.6	1655.7
165°	1526.8	1535.7	1544.8	1547.0	1553.7	1562.7	1567.2	1581.0	1608.5	1629.1	1631.3
167.5°	1551.3	1555.5	1559.8	1560.9	1566.6	1574.2	1577.9	1586.9	1604.9	1618.4	1619.3
170°	1567.2	1571.5	1575.8	1576.9	1577.2	1577.7	1577.9	1586.9	1604.9	1618.4	1618.4
172.5°	1575.8	1576.7	1577.7	1577.9	1577.9	1577.9	1577.9	1585.0	1599.2	1609.9	1609.0
175°	1587.5	1587.5	1587.5	1587.5	1584.3	1580.1	1577.9	1582.4	1591.4	1598.2	1598.2
177.5°	1587.5	1587.5	1587.5	1587.5	1585.0	1581.7	1580.1	1583.6	1590.7	1596.0	1595.1
180°	1587.5	1587.5	1587.5	1587.5	1587.5	1587.5	1587.5	1587.5	1587.5	1587.5	1587.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	356.3	356.3
2.5°	380.3	378.0
5°	489.2	491.5
7.5°	658.7	657.6
10°	819.1	829.4
12.5°	936.0	938.3
15°	1007.0	1011.6
17.5°	1034.5	1035.6
20°	1035.6	1033.3
22.5°	1023.1	1020.8
25°	1008.1	1007.0
27.5°	994.4	995.6
30°	988.7	992.2
32.5°	988.7	994.4
35°	991.0	996.7
37.5°	989.8	996.7
40°	985.2	993.3
42.5°	972.7	978.4
45°	953.2	960.0
47.5°	927.9	932.5
50°	895.9	900.5
52.5°	855.8	856.9
55°	807.7	812.3
57.5°	756.2	757.3
60°	698.8	702.3
62.5°	638.1	638.1
65°	574.0	576.3
67.5°	507.5	513.2
70°	440.0	441.1
72.5°	373.5	373.5
75°	304.8	305.9
77.5°	239.4	239.4
80°	177.6	178.7
82.5°	122.6	124.9
85°	76.8	76.8
87.5°	35.5	32.1
90°	40.5	40.5
92.5°	162.2	130.0
95°	565.3	467.7
97.5°	1354.4	1168.8
100°	1951.4	1730.3
102.5°	2538.7	2349.4
105°	3287.5	3185.7
107.5°	3778.0	3802.6
110°	3965.0	4071.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3981.7	4144.6
115°	3876.1	4101.9
117.5°	3652.3	3902.8
120°	3471.9	3715.2
122.5°	3296.2	3536.3
125°	3045.6	3266.7
127.5°	2820.2	3006.7
130°	2687.3	2859.7
132.5°	2566.7	2721.2
135°	2401.6	2534.7
137.5°	2269.2	2378.1
140°	2178.3	2280.1
142.5°	2102.9	2190.6
145°	1990.0	2056.3
147.5°	1903.3	1958.3
150°	1848.8	1893.3
152.5°	1802.1	1835.8
155°	1748.6	1770.8
157.5°	1706.1	1721.8
160°	1680.8	1689.8
162.5°	1664.2	1672.7
165°	1640.4	1649.3
167.5°	1623.2	1626.9
170°	1618.4	1618.4
172.5°	1605.8	1602.4
175°	1598.2	1598.2
177.5°	1591.2	1587.5
180°	1587.5	1587.5



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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	0.34	0.99	2.62	12.35	13.02	13.52	14.17	15.80
	3H	0.00	0.46	1.04	1.62	3.27	14.18	14.77	15.35	15.94	17.58
	4H	0.15	0.72	1.34	1.88	3.53	14.81	15.38	16.00	16.54	18.19
	6H	0.39	0.91	1.58	2.08	3.74	15.23	15.76	16.42	16.92	18.58
	8H	0.46	0.95	1.65	2.13	3.78	15.35	15.85	16.54	17.02	18.68
	12H	0.47	0.94	1.66	2.11	3.78	15.41	15.88	16.61	17.05	18.73
4H	2H	6.37	6.93	7.56	8.09	9.74	12.60	13.17	13.79	14.33	15.98
	3H	7.92	8.39	9.11	9.58	11.24	14.63	15.10	15.83	16.29	17.95
	4H	8.00	8.44	9.20	9.61	11.29	15.39	15.83	16.59	17.00	18.68
	6H	8.00	8.37	9.20	9.57	11.24	15.92	16.29	17.12	17.49	19.15
	8H	7.97	8.32	9.17	9.51	11.19	16.07	16.42	17.27	17.61	19.30
	12H	7.92	8.23	9.13	9.43	11.12	16.16	16.47	17.37	17.67	19.36
8H	4H	9.43	9.78	10.63	10.97	12.65	15.43	15.78	16.63	16.97	18.65
	6H	9.66	9.95	10.88	11.18	12.86	16.05	16.34	17.27	17.57	19.25
	8H	9.68	9.93	10.90	11.13	12.84	16.27	16.52	17.49	17.73	19.43
	12H	9.64	9.86	10.86	11.06	12.79	16.40	16.62	17.63	17.83	19.56
12H	4H	9.56	9.88	10.78	11.08	12.77	15.38	15.69	16.59	16.89	18.58
	6H	9.92	10.17	11.14	11.38	13.08	16.03	16.28	17.26	17.49	19.19
	8H	9.98	10.20	11.20	11.40	13.13	16.25	16.47	17.48	17.68	19.41