

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: P937775

Luminaire Tested: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937775
REPORT IS A COMBINATION OF REPORTS P933576 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

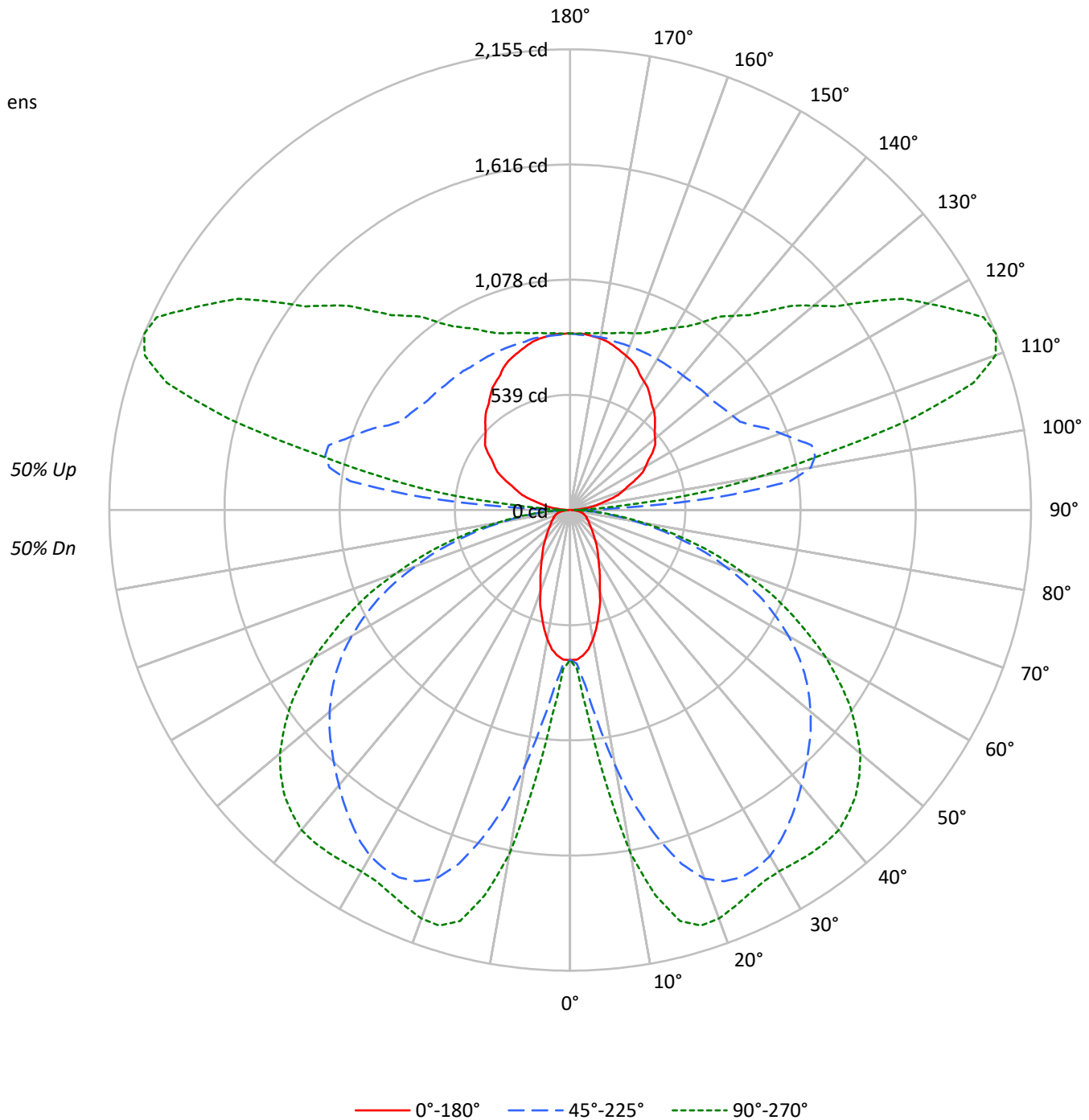
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10777.7 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 103.2
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

TEST NUMBER: P937775
CATALOG NUMBER: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

Luminous Intensity Polar Plot





TEST NUMBER: P937775

CATALOG NUMBER: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

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	50	30	10	0
RCR																					
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4336	4336	4336
5°	4235	5011	5829
10°	3840	7303	9664
15°	3263	9539	11669
20°	2655	11051	11892
25°	2214	11561	11650
30°	1866	11631	11628
35°	1649	11435	11930
40°	1437	11181	12240
45°	1299	10993	12288
50°	1191	10825	12084
55°	1140	10579	11549
60°	1165	10110	10703
65°	1211	9398	9541
70°	1287	8191	8060
75°	1420	6673	6290
80°	1540	4622	4238
85°	1347	2447	2169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12288 cd/sqm



TEST NUMBER: P937775

CATALOG NUMBER: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.7	0.8
10°-20°	401.9	3.7
20°-30°	703.0	6.5
30°-40°	904.9	8.4
40°-50°	1010.8	9.4
50°-60°	968.1	9.0
60°-70°	767.2	7.1
70°-80°	451.1	4.2
80°-90°	128.5	1.2
90°-100°	402.4	3.7
100°-110°	1057.9	9.8
110°-120°	1096.9	10.2
120°-130°	879.9	8.2
130°-140°	690.4	6.4
140°-150°	529.9	4.9
150°-160°	381.6	3.5
160°-170°	233.5	2.2
170°-180°	78.9	0.7
0°-30°	1195.5	11.1
0°-40°	2100.5	19.5
0°-60°	4079.3	37.8
0°-90°	5426.2	50.3
90°-120°	2557.3	23.7
90°-150°	4657.5	43.2
90°-180°	5352.0	49.7
0°-180°	10777.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	701	701	701	701	701	
5°	683	733	825	933	967	63
15°	512	944	1591	1929	1990	142
25°	327	1071	1896	1979	1981	151
35°	221	1023	1785	1887	1961	138
45°	151	816	1578	1808	1889	117
55°	108	518	1339	1555	1598	99
65°	86	275	994	1118	1134	85
75°	63	169	546	600	602	66
85°	23	52	135	149	151	24
90°	6	16	42	21	21	6
95°	53	208	693	357	243	59
105°	191	289	1170	1776	1657	202
115°	338	411	937	1869	2133	334
125°	471	528	852	1440	1699	418
135°	561	618	826	1162	1318	434
145°	651	693	815	992	1069	408
155°	736	756	815	895	921	338
165°	794	804	815	847	858	224
175°	826	826	820	831	831	78
180°	826	826	826	826	826	



TEST NUMBER: P937775

CATALOG NUMBER: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
2.5°	701.0	701.0	705.5	707.7	712.3	714.6	719.0	723.5	737.0	739.3	743.9
5°	683.0	692.0	721.3	732.6	764.1	806.9	825.0	854.3	915.2	933.2	944.5
7.5°	656.0	676.2	748.3	766.3	845.3	958.0	1005.3	1068.4	1165.3	1212.7	1251.0
10°	613.1	656.0	784.4	827.3	955.8	1127.0	1215.0	1302.9	1449.4	1514.8	1539.5
12.5°	565.7	635.6	822.7	881.3	1066.1	1316.4	1422.3	1519.2	1686.0	1774.0	1787.5
15°	511.7	606.3	858.8	944.5	1183.3	1474.2	1591.4	1710.8	1866.4	1929.4	1945.3
17.5°	464.3	583.8	892.6	982.7	1273.6	1616.2	1735.6	1834.8	1961.1	2003.9	2015.1
20°	405.7	547.7	915.2	1032.4	1368.2	1719.9	1834.8	1911.4	1997.1	2024.1	2028.6
22.5°	362.9	509.4	928.7	1050.4	1431.4	1782.9	1879.9	1940.7	1999.3	2008.4	2010.6
25°	326.9	466.6	926.5	1070.7	1485.4	1821.3	1895.7	1940.7	1974.6	1979.1	1979.1
27.5°	293.0	419.2	917.4	1075.2	1526.0	1830.3	1888.9	1920.5	1936.2	1945.3	1945.3
30°	263.7	374.2	894.8	1066.1	1544.1	1821.3	1868.6	1884.4	1900.1	1913.7	1920.5
32.5°	241.2	331.3	861.0	1048.1	1546.3	1798.7	1832.6	1841.5	1864.1	1895.7	1906.9
35°	220.9	288.5	822.7	1023.3	1532.8	1762.7	1785.2	1794.2	1839.3	1886.6	1902.5
37.5°	200.6	257.0	773.2	980.5	1512.4	1719.9	1735.6	1751.4	1821.3	1877.6	1895.7
40°	180.4	229.9	714.6	933.2	1480.9	1668.0	1681.5	1706.3	1798.7	1864.1	1882.1
42.5°	164.5	207.3	651.4	883.6	1440.3	1609.4	1629.7	1665.7	1771.6	1841.5	1861.9
45°	151.0	184.8	583.8	816.0	1388.5	1548.5	1577.8	1627.4	1740.1	1807.8	1825.8
47.5°	137.5	169.1	513.9	746.1	1332.2	1487.7	1526.0	1582.3	1697.3	1762.7	1778.5
50°	126.2	153.3	444.1	671.7	1271.3	1422.3	1467.4	1526.0	1643.2	1704.1	1724.3
52.5°	117.2	139.8	378.6	597.4	1201.4	1354.6	1406.5	1467.4	1577.8	1636.4	1650.0
55°	108.2	128.5	322.3	518.4	1129.3	1282.5	1338.9	1397.5	1505.7	1555.3	1564.3
57.5°	103.7	119.4	275.0	444.1	1052.6	1201.4	1264.5	1318.6	1420.1	1458.4	1467.4
60°	96.9	112.7	239.0	381.0	969.3	1124.7	1178.9	1233.0	1318.6	1350.2	1357.0
62.5°	90.1	108.2	211.9	320.0	883.6	1034.6	1088.7	1138.3	1210.4	1233.0	1242.0
65°	85.7	103.7	191.6	275.0	795.6	939.9	994.0	1036.8	1095.4	1118.0	1122.5
67.5°	81.2	99.2	175.8	236.7	707.7	845.3	885.9	926.5	971.5	994.0	996.3
70°	74.4	94.7	162.3	209.7	617.6	737.0	770.9	813.7	849.8	861.0	867.8
72.5°	69.9	87.9	153.3	189.3	525.2	633.4	664.9	689.7	721.3	732.6	732.6
75°	63.1	78.9	144.3	169.1	430.5	518.4	545.5	570.3	595.0	599.6	592.8
77.5°	56.4	69.9	124.0	142.0	335.8	410.3	432.8	446.3	466.6	471.1	473.4
80°	47.3	60.8	96.9	110.5	243.4	302.0	317.8	329.1	347.1	347.1	351.6
82.5°	36.1	47.3	69.9	78.9	164.5	207.3	220.9	227.7	239.0	239.0	239.0
85°	22.6	29.3	45.1	51.9	99.2	126.2	135.2	137.5	146.5	148.7	148.7
87.5°	11.3	15.8	29.3	31.5	51.9	65.4	65.4	69.9	69.9	67.7	65.4
90°	5.5	9.9	14.4	15.5	24.4	36.2	42.1	37.4	28.1	21.0	21.0
92.5°	22.2	59.9	97.5	106.9	150.3	208.1	237.1	207.8	149.2	105.2	101.1
95°	53.2	122.1	191.1	208.3	369.9	585.4	693.1	618.5	469.2	357.3	344.6
97.5°	92.0	152.8	213.7	228.8	498.3	857.5	1037.2	990.0	895.7	825.0	800.8
100°	121.9	177.1	232.2	246.0	545.0	943.6	1142.9	1146.4	1153.3	1158.5	1129.7
102.5°	147.4	198.9	250.3	263.2	566.5	970.8	1172.9	1233.0	1353.1	1443.3	1418.7
105°	190.6	234.2	277.8	288.7	582.4	973.9	1169.6	1304.3	1573.6	1775.6	1762.4
107.5°	234.9	275.5	316.2	326.3	585.3	930.4	1103.1	1291.0	1666.7	1948.5	1951.7
110°	264.8	301.5	338.2	347.4	580.8	892.1	1047.7	1257.7	1677.8	1992.8	2006.6



TEST NUMBER: P937775

CATALOG NUMBER: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	294.2	329.2	364.2	372.9	581.0	858.5	997.2	1212.2	1642.2	1964.6	1985.7
115°	338.5	370.7	403.0	411.1	586.3	820.0	936.8	1143.9	1558.2	1868.8	1898.2
117.5°	382.3	411.6	440.9	448.2	597.2	795.9	895.3	1082.2	1456.0	1736.3	1768.9
120°	407.8	435.4	462.9	469.8	606.1	787.8	878.7	1049.4	1391.0	1647.2	1678.8
122.5°	432.7	460.5	488.4	495.3	618.8	783.6	866.0	1019.8	1327.3	1557.9	1589.2
125°	470.9	496.3	521.7	528.0	636.1	780.1	852.1	982.7	1244.0	1440.0	1468.8
127.5°	502.0	527.6	553.2	559.6	653.2	778.1	840.5	952.6	1177.0	1345.2	1369.5
130°	518.6	546.2	573.7	580.7	665.8	779.3	836.1	935.9	1135.6	1285.4	1307.8
132.5°	535.7	563.3	590.9	597.8	675.9	780.1	832.1	921.6	1100.3	1234.4	1254.5
135°	561.2	586.3	611.5	617.8	687.0	779.3	825.5	900.3	1050.1	1162.4	1179.7
137.5°	587.2	612.1	637.1	643.3	703.7	784.2	824.4	887.7	1014.3	1109.2	1123.3
140°	608.9	631.8	654.7	660.4	713.8	784.9	820.5	875.2	984.5	1066.5	1079.7
142.5°	625.5	646.7	667.9	673.2	722.3	787.7	820.5	868.6	964.5	1036.6	1047.9
145°	651.0	669.5	687.9	692.6	733.4	787.8	815.0	854.3	932.8	991.7	1000.3
147.5°	676.5	694.4	712.4	716.9	749.6	793.2	815.0	845.9	907.7	954.1	961.2
150°	693.1	709.3	725.6	729.7	758.1	796.0	815.0	841.1	893.2	932.4	938.2
152.5°	710.3	722.7	734.9	738.0	763.7	797.9	815.0	837.3	881.9	915.3	919.6
155°	735.8	744.9	753.9	756.2	775.8	802.0	815.0	832.8	868.2	894.7	897.7
157.5°	754.6	763.5	772.3	774.5	788.0	806.0	815.0	828.8	856.4	877.1	879.1
160°	767.3	774.2	781.2	782.9	793.6	807.9	815.0	826.8	850.4	868.2	869.4
162.5°	780.1	785.3	790.4	791.7	799.5	809.9	815.0	825.0	844.9	859.9	860.9
165°	794.0	798.6	803.3	804.4	808.0	812.7	815.0	822.1	836.4	847.2	848.3
167.5°	806.7	808.9	811.1	811.6	814.6	818.6	820.5	825.2	834.5	841.6	842.1
170°	815.0	817.2	819.4	820.0	820.2	820.4	820.5	825.2	834.5	841.6	841.6
172.5°	819.4	819.9	820.4	820.5	820.5	820.5	820.5	824.2	831.6	837.1	836.7
175°	825.5	825.5	825.5	825.5	823.8	821.6	820.5	822.8	827.5	831.1	831.1
177.5°	825.5	825.5	825.5	825.5	824.2	822.6	821.7	823.5	827.2	829.9	829.4
180°	825.5	825.5	825.5	825.5	825.5	825.5	825.5	825.5	825.5	825.5	825.5



TEST NUMBER: P937775

CATALOG NUMBER: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	701.0	701.0
2.5°	748.3	743.9
5°	962.5	967.0
7.5°	1296.1	1293.8
10°	1611.6	1632.0
12.5°	1841.5	1846.1
15°	1981.3	1990.4
17.5°	2035.4	2037.7
20°	2037.7	2033.2
22.5°	2012.8	2008.4
25°	1983.5	1981.3
27.5°	1956.5	1958.8
30°	1945.3	1952.0
32.5°	1945.3	1956.5
35°	1949.8	1961.1
37.5°	1947.5	1961.1
40°	1938.5	1954.2
42.5°	1913.7	1925.0
45°	1875.4	1888.9
47.5°	1825.8	1834.8
50°	1762.7	1771.6
52.5°	1683.7	1686.0
55°	1589.1	1598.1
57.5°	1487.7	1489.9
60°	1375.0	1381.7
62.5°	1255.5	1255.5
65°	1129.3	1133.8
67.5°	998.6	1009.8
70°	865.5	867.8
72.5°	734.8	734.8
75°	599.6	601.8
77.5°	471.1	471.1
80°	349.3	351.6
82.5°	241.2	245.7
85°	151.0	151.0
87.5°	69.9	63.1
90°	21.0	21.0
92.5°	84.3	67.6
95°	293.9	243.2
97.5°	704.3	607.7
100°	1014.7	899.7
102.5°	1320.1	1221.6
105°	1709.5	1656.6
107.5°	1964.6	1977.4
110°	2061.8	2117.0



TEST NUMBER: P937775

CATALOG NUMBER: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2070.5	2155.2
115°	2015.6	2133.1
117.5°	1899.2	2029.4
120°	1805.4	1931.9
122.5°	1714.0	1838.9
125°	1583.7	1698.7
127.5°	1466.5	1563.5
130°	1397.4	1487.0
132.5°	1334.8	1415.0
135°	1248.9	1318.1
137.5°	1180.0	1236.6
140°	1132.7	1185.7
142.5°	1093.6	1139.1
145°	1034.9	1069.3
147.5°	989.8	1018.4
150°	961.3	984.5
152.5°	937.1	954.6
155°	909.2	920.8
157.5°	887.2	895.3
160°	874.1	878.7
162.5°	865.4	869.8
165°	853.0	857.6
167.5°	844.0	846.0
170°	841.6	841.6
172.5°	835.0	833.3
175°	831.1	831.1
177.5°	827.4	825.5
180°	825.5	825.5



TEST NUMBER: P937775
 CATALOG NUMBER: SQ4-FB-100U-125D-940-1D-UNV-STD-W-6

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	6.13	7.03	7.08	8.00	9.26	19.30	20.20	20.24	21.17	22.43
	3H	6.84	7.65	7.80	8.63	9.91	21.13	21.94	22.09	22.92	24.21
	4H	7.14	7.91	8.11	8.89	10.18	21.78	22.55	22.75	23.53	24.82
	6H	7.39	8.10	8.37	9.09	10.40	22.20	22.91	23.19	23.90	25.21
	8H	7.46	8.14	8.45	9.14	10.45	22.32	23.00	23.31	24.00	25.31
	12H	7.48	8.12	8.48	9.12	10.45	22.39	23.04	23.39	24.03	25.36
4H	2H	13.34	14.11	14.32	15.09	16.39	19.57	20.34	20.55	21.33	22.62
	3H	14.91	15.56	15.90	16.57	17.88	21.62	22.26	22.61	23.27	24.58
	4H	15.01	15.60	16.01	16.60	17.94	22.38	22.97	23.38	23.98	25.31
	6H	15.02	15.53	16.03	16.56	17.89	22.92	23.43	23.93	24.46	25.79
	8H	15.00	15.48	16.01	16.50	17.84	23.08	23.56	24.09	24.58	25.92
	12H	14.96	15.39	15.99	16.43	17.78	23.18	23.61	24.20	24.64	25.99
8H	4H	16.46	16.93	17.47	17.95	19.30	22.45	22.93	23.46	23.95	25.29
	6H	16.70	17.09	17.73	18.16	19.50	23.08	23.47	24.11	24.53	25.87
	8H	16.72	17.07	17.76	18.11	19.47	23.29	23.64	24.34	24.69	26.05
	12H	16.69	17.00	17.74	18.04	19.44	23.44	23.74	24.48	24.79	26.19
12H	4H	16.60	17.03	17.63	18.07	19.42	22.40	22.83	23.43	23.87	25.22
	6H	16.96	17.31	18.00	18.35	19.71	23.06	23.41	24.10	24.46	25.82
	8H	17.03	17.34	18.08	18.38	19.78	23.29	23.60	24.34	24.64	26.04