

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: P937763

Luminaire Tested: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

**Test Information**

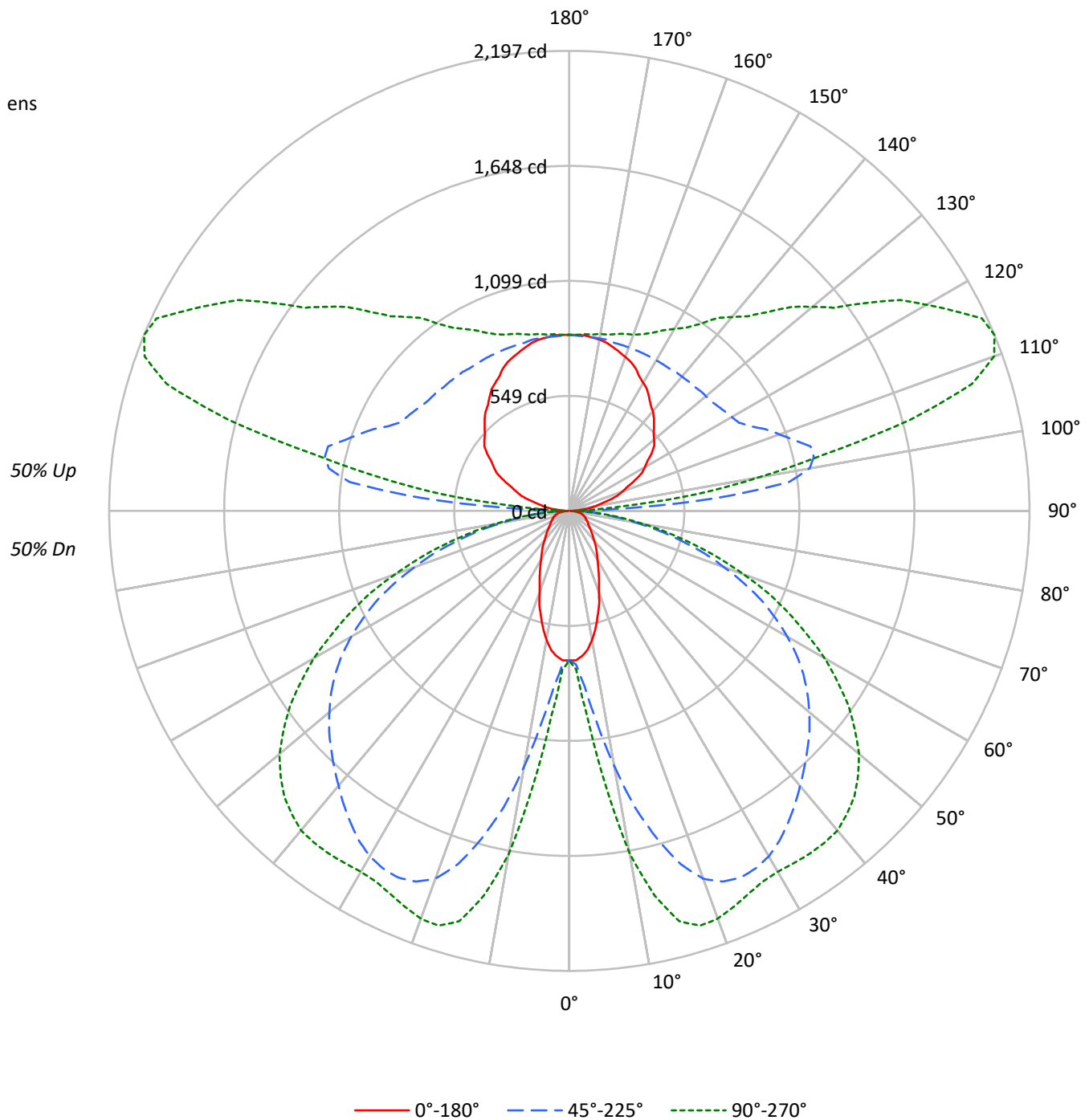
Test Method: LM-79-2019  
Report Number: P937763  
REPORT IS A COMBINATION OF REPORTS P933576 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10985.9 lumens  
Efficiency: N/A  
Efficacy: 106.5 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 (Ain): 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	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°	4420	4420	4420
5°	4317	5108	5942
10°	3914	7444	9850
15°	3326	9723	11894
20°	2706	11264	12122
25°	2257	11785	11876
30°	1902	11856	11853
35°	1681	11656	12160
40°	1464	11397	12476
45°	1325	11206	12525
50°	1214	11034	12318
55°	1161	10783	11772
60°	1188	10305	10909
65°	1234	9580	9725
70°	1313	8349	8216
75°	1449	6801	6411
80°	1569	4712	4320
85°	1371	2496	2212

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12525 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.4	0.8
10°-20°	409.7	3.7
20°-30°	716.6	6.5
30°-40°	922.4	8.4
40°-50°	1030.3	9.4
50°-60°	986.8	9.0
60°-70°	782.0	7.1
70°-80°	459.9	4.2
80°-90°	131.0	1.2
90°-100°	410.2	3.7
100°-110°	1078.4	9.8
110°-120°	1118.1	10.2
120°-130°	896.9	8.2
130°-140°	703.7	6.4
140°-150°	540.2	4.9
150°-160°	389.0	3.5
160°-170°	238.0	2.2
170°-180°	80.4	0.7
0°-30°	1218.6	11.1
0°-40°	2141.1	19.5
0°-60°	4158.2	37.8
0°-90°	5531.0	50.3
90°-120°	2606.7	23.7
90°-150°	4747.5	43.2
90°-180°	5455.0	49.7
0°-180°	10985.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	714	714	714	714	714	
5°	696	747	841	951	986	64
15°	522	963	1622	1967	2029	145
25°	333	1091	1932	2017	2020	153
35°	225	1043	1820	1923	1999	141
45°	154	832	1608	1843	1925	119
55°	110	528	1365	1585	1629	100
65°	87	280	1013	1140	1156	87
75°	64	172	556	611	613	67
85°	23	53	138	152	154	24
90°	6	16	43	22	22	6
95°	54	212	706	364	248	60
105°	194	294	1192	1810	1689	206
115°	345	419	955	1905	2174	341
125°	480	538	869	1468	1732	426
135°	572	630	841	1185	1344	443
145°	664	706	831	1011	1090	416
155°	750	771	831	912	939	345
165°	809	820	831	864	874	228
175°	841	841	836	847	847	80
180°	841	841	841	841	841	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	714.5	714.5	714.5	714.5	714.5	714.5	714.5	714.5	714.5	714.5	714.5
2.5°	714.5	714.5	719.2	721.4	726.0	728.4	732.9	737.5	751.3	753.6	758.3
5°	696.2	705.4	735.3	746.8	778.9	822.5	840.9	870.8	932.9	951.2	962.7
7.5°	668.6	689.3	762.8	781.2	861.6	976.5	1024.7	1089.1	1187.8	1236.1	1275.2
10°	624.9	668.6	799.5	843.2	974.2	1148.8	1238.4	1328.1	1477.4	1544.0	1569.3
12.5°	576.7	647.9	838.6	898.4	1086.7	1341.8	1449.8	1548.5	1718.6	1808.2	1822.0
15°	521.6	618.0	875.4	962.7	1206.2	1502.7	1622.1	1743.9	1902.5	1966.7	1982.8
17.5°	473.3	595.1	909.9	1001.7	1298.2	1647.4	1769.1	1870.2	1999.0	2042.6	2054.1
20°	413.6	558.3	932.9	1052.3	1394.7	1753.1	1870.2	1948.4	2035.7	2063.2	2067.8
22.5°	369.9	519.3	946.6	1070.7	1459.0	1817.4	1916.2	1978.2	2038.0	2047.2	2049.5
25°	333.2	475.6	944.4	1091.4	1514.2	1856.5	1932.3	1978.2	2012.7	2017.3	2017.3
27.5°	298.7	427.3	935.1	1096.0	1555.5	1865.6	1925.4	1957.6	1973.6	1982.8	1982.8
30°	268.8	381.4	912.1	1086.7	1573.9	1856.5	1904.7	1920.8	1936.9	1950.7	1957.6
32.5°	245.8	337.7	877.6	1068.4	1576.2	1833.5	1868.0	1877.1	1900.1	1932.3	1943.7
35°	225.2	294.1	838.6	1043.1	1562.4	1796.7	1819.7	1828.9	1874.9	1923.1	1939.2
37.5°	204.5	262.0	788.1	999.5	1541.7	1753.1	1769.1	1785.2	1856.5	1913.9	1932.3
40°	183.8	234.3	728.4	951.2	1509.5	1700.3	1714.0	1739.3	1833.5	1900.1	1918.5
42.5°	167.7	211.4	664.0	900.6	1468.2	1640.5	1661.2	1697.9	1805.9	1877.1	1897.9
45°	154.0	188.4	595.1	831.8	1415.3	1578.4	1608.3	1658.9	1773.8	1842.7	1861.1
47.5°	140.1	172.3	523.8	760.5	1357.9	1516.4	1555.5	1612.9	1730.1	1796.7	1812.9
50°	128.6	156.2	452.7	684.7	1295.8	1449.8	1495.8	1555.5	1675.0	1737.0	1757.6
52.5°	119.5	142.5	386.0	608.9	1224.6	1380.8	1433.7	1495.8	1608.3	1668.0	1681.9
55°	110.2	131.0	328.6	528.4	1151.1	1307.3	1364.8	1424.5	1534.8	1585.4	1594.5
57.5°	105.7	121.7	280.3	452.7	1073.0	1224.6	1288.9	1344.1	1447.5	1486.5	1495.8
60°	98.8	114.9	243.6	388.3	988.0	1146.5	1201.7	1256.8	1344.1	1376.3	1383.2
62.5°	91.9	110.2	216.0	326.2	900.6	1054.6	1109.7	1160.3	1233.8	1256.8	1266.0
65°	87.3	105.7	195.3	280.3	811.0	958.1	1013.2	1056.9	1116.6	1139.6	1144.2
67.5°	82.7	101.1	179.2	241.2	721.4	861.6	903.0	944.4	990.2	1013.2	1015.6
70°	75.9	96.5	165.5	213.7	629.5	751.3	785.8	829.4	866.2	877.6	884.6
72.5°	71.2	89.6	156.2	193.0	535.3	645.7	677.8	703.0	735.3	746.8	746.8
75°	64.4	80.4	147.1	172.3	438.8	528.4	556.0	581.3	606.5	611.2	604.3
77.5°	57.5	71.2	126.4	144.7	342.3	418.2	441.2	454.9	475.6	480.2	482.5
80°	48.2	62.0	98.8	112.6	248.1	307.8	324.0	335.5	353.8	353.8	358.4
82.5°	36.7	48.2	71.2	80.4	167.7	211.4	225.2	232.1	243.6	243.6	243.6
85°	23.0	29.9	46.0	52.9	101.1	128.6	137.9	140.1	149.4	151.6	151.6
87.5°	11.5	16.1	29.9	32.1	52.9	66.6	66.6	71.2	71.2	69.0	66.6
90°	5.6	10.1	14.7	15.8	24.9	36.9	42.9	38.1	28.6	21.5	21.5
92.5°	22.6	61.0	99.4	109.0	153.2	212.2	241.7	211.8	152.1	107.3	103.0
95°	54.2	124.5	194.8	212.4	377.1	596.7	706.5	630.4	478.3	364.2	351.3
97.5°	93.8	155.8	217.8	233.3	507.9	874.1	1057.2	1009.2	913.0	840.9	816.3
100°	124.3	180.5	236.7	250.7	555.5	961.8	1165.0	1168.6	1175.6	1180.9	1151.5
102.5°	150.3	202.8	255.2	268.3	577.4	989.5	1195.5	1256.8	1379.3	1471.2	1446.1
105°	194.2	238.7	283.1	294.3	593.6	992.7	1192.2	1329.5	1604.0	1810.0	1796.5
107.5°	239.4	280.9	322.3	332.6	596.6	948.4	1124.4	1315.9	1698.9	1986.2	1989.5
110°	269.9	307.3	344.8	354.1	592.1	909.3	1067.9	1282.0	1710.2	2031.4	2045.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	299.9	335.5	371.2	380.1	592.2	875.1	1016.5	1235.6	1673.9	2002.6	2024.1
115°	345.0	377.9	410.8	419.0	597.7	835.8	954.9	1166.0	1588.3	1904.9	1934.9
117.5°	389.7	419.5	449.4	456.8	608.7	811.3	912.6	1103.1	1484.1	1769.9	1803.1
120°	415.6	443.8	471.9	478.9	617.9	803.1	895.7	1069.7	1417.8	1679.0	1711.2
122.5°	441.1	469.4	497.8	504.9	630.8	798.7	882.7	1039.5	1352.9	1588.0	1619.9
125°	480.0	505.9	531.8	538.2	648.4	795.2	868.6	1001.7	1268.0	1467.8	1497.1
127.5°	511.7	537.8	563.9	570.4	665.8	793.1	856.7	971.1	1199.7	1371.2	1395.9
130°	528.6	556.8	584.8	591.9	678.7	794.4	852.2	953.9	1157.5	1310.2	1333.0
132.5°	546.1	574.2	602.3	609.4	689.0	795.2	848.2	939.4	1121.6	1258.3	1278.7
135°	572.1	597.7	623.3	629.7	700.3	794.4	841.4	917.7	1070.4	1184.9	1202.5
137.5°	598.6	623.9	649.4	655.7	717.2	799.3	840.4	904.9	1033.9	1130.6	1145.0
140°	620.7	644.0	667.4	673.2	727.6	800.1	836.4	892.1	1003.6	1087.1	1100.6
142.5°	637.6	659.2	680.8	686.2	736.3	803.0	836.4	885.3	983.2	1056.6	1068.2
145°	663.6	682.4	701.2	705.9	747.6	803.1	830.8	870.8	950.9	1010.9	1019.7
147.5°	689.6	707.8	726.1	730.7	764.0	808.5	830.8	862.3	925.3	972.5	979.7
150°	706.5	723.0	739.6	743.8	772.7	811.4	830.8	857.4	910.5	950.4	956.3
152.5°	724.0	736.6	749.1	752.3	778.4	813.3	830.8	853.5	898.9	932.9	937.4
155°	750.0	759.2	768.5	770.8	790.8	817.5	830.8	848.9	885.0	912.0	915.0
157.5°	769.2	778.3	787.2	789.5	803.2	821.6	830.8	844.8	872.9	894.0	896.1
160°	782.1	789.2	796.3	798.0	808.9	823.5	830.8	842.8	866.9	885.0	886.2
162.5°	795.2	800.4	805.7	807.0	814.9	825.5	830.8	840.9	861.3	876.5	877.6
165°	809.3	814.0	818.8	820.0	823.6	828.4	830.8	838.0	852.6	863.5	864.7
167.5°	822.2	824.5	826.8	827.3	830.3	834.4	836.4	841.2	850.7	857.8	858.4
170°	830.8	833.0	835.3	835.8	836.0	836.3	836.4	841.2	850.7	857.8	857.8
172.5°	835.3	835.7	836.3	836.4	836.4	836.4	836.4	840.2	847.7	853.3	852.8
175°	841.4	841.4	841.4	841.4	839.7	837.5	836.4	838.7	843.5	847.1	847.1
177.5°	841.4	841.4	841.4	841.4	840.2	838.5	837.5	839.4	843.2	846.0	845.4
180°	841.4	841.4	841.4	841.4	841.4	841.4	841.4	841.4	841.4	841.4	841.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	714.5	714.5
2.5°	762.8	758.3
5°	981.1	985.7
7.5°	1321.2	1318.8
10°	1642.8	1663.5
12.5°	1877.1	1881.7
15°	2019.6	2028.8
17.5°	2074.7	2077.1
20°	2077.1	2072.5
22.5°	2051.7	2047.2
25°	2021.9	2019.6
27.5°	1994.3	1996.6
30°	1982.8	1989.7
32.5°	1982.8	1994.3
35°	1987.5	1999.0
37.5°	1985.1	1999.0
40°	1976.0	1992.0
42.5°	1950.7	1962.2
45°	1911.6	1925.4
47.5°	1861.1	1870.2
50°	1796.7	1805.9
52.5°	1716.3	1718.6
55°	1619.8	1629.0
57.5°	1516.4	1518.7
60°	1401.6	1408.4
62.5°	1279.8	1279.8
65°	1151.1	1155.7
67.5°	1017.9	1029.3
70°	882.3	884.6
72.5°	749.0	749.0
75°	611.2	613.4
77.5°	480.2	480.2
80°	356.1	358.4
82.5°	245.8	250.5
85°	154.0	154.0
87.5°	71.2	64.4
90°	21.5	21.5
92.5°	85.9	68.9
95°	299.6	247.9
97.5°	717.9	619.5
100°	1034.3	917.1
102.5°	1345.6	1245.2
105°	1742.5	1688.6
107.5°	2002.6	2015.6
110°	2101.7	2157.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2110.5	2196.8
115°	2054.5	2174.3
117.5°	1935.9	2068.7
120°	1840.3	1969.3
122.5°	1747.1	1874.4
125°	1614.3	1731.5
127.5°	1494.9	1593.7
130°	1424.5	1515.8
132.5°	1360.5	1442.4
135°	1273.0	1343.5
137.5°	1202.8	1260.5
140°	1154.6	1208.6
142.5°	1114.7	1161.1
145°	1054.9	1090.0
147.5°	1008.9	1038.0
150°	979.9	1003.6
152.5°	955.2	973.0
155°	926.8	938.6
157.5°	904.3	912.6
160°	890.9	895.7
162.5°	882.1	886.6
165°	869.5	874.2
167.5°	860.4	862.3
170°	857.8	857.8
172.5°	851.1	849.4
175°	847.1	847.1
177.5°	843.4	841.4
180°	841.4	841.4



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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	6.20	7.10	7.14	8.07	9.33	19.36	20.26	20.31	21.23	22.50
	3H	6.91	7.72	7.86	8.69	9.98	21.20	22.01	22.16	22.99	24.27
	4H	7.21	7.97	8.18	8.96	10.25	21.84	22.61	22.81	23.59	24.89
	6H	7.46	8.17	8.44	9.15	10.46	22.27	22.98	23.25	23.97	25.27
	8H	7.53	8.20	8.52	9.21	10.51	22.39	23.07	23.38	24.07	25.38
	12H	7.55	8.19	8.54	9.19	10.52	22.46	23.10	23.45	24.10	25.43
4H	2H	13.41	14.18	14.38	15.16	16.45	19.64	20.41	20.62	21.39	22.69
	3H	14.98	15.62	15.97	16.64	17.94	21.69	22.33	22.67	23.34	24.65
	4H	15.08	15.67	16.07	16.67	18.00	22.45	23.04	23.45	24.04	25.38
	6H	15.09	15.60	16.10	16.63	17.96	22.99	23.50	24.00	24.53	25.85
	8H	15.07	15.54	16.08	16.56	17.91	23.15	23.63	24.16	24.65	25.99
	12H	15.03	15.46	16.06	16.49	17.84	23.24	23.67	24.27	24.71	26.06
8H	4H	16.52	17.00	17.53	18.02	19.36	22.52	22.99	23.52	24.01	25.36
	6H	16.77	17.16	17.80	18.22	19.56	23.14	23.54	24.18	24.60	25.94
	8H	16.79	17.13	17.83	18.18	19.54	23.36	23.71	24.40	24.76	26.12
	12H	16.76	17.06	17.80	18.10	19.51	23.50	23.81	24.55	24.85	26.26
12H	4H	16.67	17.10	17.70	18.13	19.48	22.47	22.90	23.50	23.94	25.29
	6H	17.02	17.37	18.07	18.42	19.78	23.13	23.48	24.17	24.52	25.88
	8H	17.10	17.40	18.14	18.44	19.85	23.36	23.66	24.40	24.70	26.11