

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: P936825

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

**Test Information**

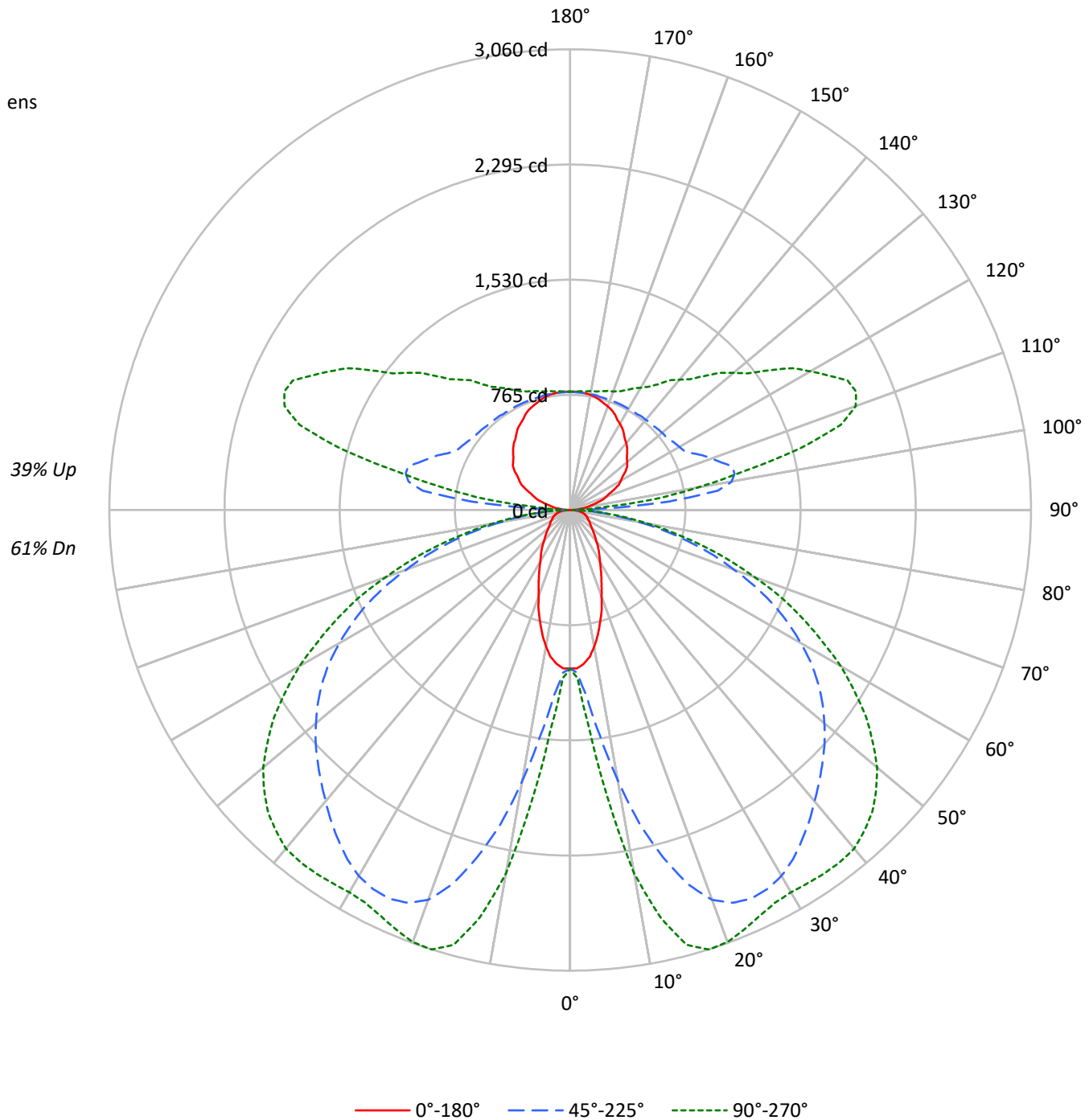
Test Method: LM-79-2019  
Report Number: P936825  
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13249.2 lumens  
Efficiency: N/A  
Efficacy: 97.7 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 135.6  
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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3257	3257	3257
5°	3183	3765	4377
10°	2888	5490	7257
15°	2455	7174	8763
20°	1999	8315	8931
25°	1669	8704	8749
30°	1408	8761	8733
35°	1245	8618	8958
40°	1086	8431	9192
45°	984	8295	9228
50°	903	8173	9075
55°	866	7994	8673
60°	887	7646	8038
65°	925	7116	7165
70°	988	6210	6053
75°	1099	5068	4724
80°	1209	3519	3183
85°	1095	1870	1630

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9228 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.2	1.0
10°-20°	603.6	4.6
20°-30°	1055.8	8.0
30°-40°	1359.1	10.3
40°-50°	1518.1	11.5
50°-60°	1454.0	11.0
60°-70°	1152.3	8.7
70°-80°	677.6	5.1
80°-90°	191.2	1.4
90°-100°	383.6	2.9
100°-110°	1008.4	7.6
110°-120°	1045.6	7.9
120°-130°	838.7	6.3
130°-140°	658.1	5.0
140°-150°	505.1	3.8
150°-160°	363.8	2.7
160°-170°	222.6	1.7
170°-180°	75.2	0.6
0°-30°	1795.6	13.6
0°-40°	3154.7	23.8
0°-60°	6126.9	46.2
0°-90°	8148.0	61.5
90°-120°	2437.7	18.4
90°-150°	4439.6	33.5
90°-180°	5101.0	38.5
0°-180°	13249.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1026	1100	1239	1402	1452	95
15°	768	1418	2390	2898	2989	214
25°	491	1608	2847	2972	2976	226
35°	332	1537	2681	2834	2945	207
45°	227	1226	2370	2715	2837	175
55°	162	779	2011	2336	2400	148
65°	129	413	1493	1679	1703	127
75°	95	254	819	900	904	99
85°	34	78	203	223	227	36
90°	5	15	40	20	20	7
95°	51	199	661	341	232	56
105°	182	275	1115	1693	1579	193
115°	323	392	893	1781	2033	319
125°	449	503	812	1373	1619	399
135°	535	589	787	1108	1256	414
145°	620	660	777	945	1019	389
155°	701	721	777	853	878	322
165°	757	767	777	808	818	214
175°	787	787	782	792	792	75
180°	787	787	787	787	787	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9	1052.9
2.5°	1052.9	1052.9	1059.6	1063.0	1069.8	1073.2	1080.0	1086.7	1107.0	1110.5	1117.2
5°	1025.8	1039.3	1083.4	1100.3	1147.7	1212.0	1239.1	1283.1	1374.5	1401.5	1418.5
7.5°	985.2	1015.6	1123.9	1151.0	1269.5	1438.8	1509.9	1604.7	1750.3	1821.3	1878.9
10°	920.8	985.2	1178.1	1242.4	1435.4	1692.7	1824.8	1956.8	2176.8	2275.0	2312.2
12.5°	849.8	954.7	1235.7	1323.7	1601.3	1977.1	2136.2	2281.8	2532.3	2664.4	2684.6
15°	768.5	910.7	1289.8	1418.5	1777.4	2214.1	2390.1	2569.6	2803.2	2897.9	2921.6
17.5°	697.4	876.8	1340.6	1476.0	1912.7	2427.3	2606.8	2755.8	2945.3	3009.6	3026.6
20°	609.3	822.7	1374.5	1550.5	2054.9	2583.1	2755.8	2870.8	2999.4	3040.1	3046.8
22.5°	545.0	765.1	1394.8	1577.6	2149.8	2677.9	2823.4	2914.9	3002.9	3016.4	3019.8
25°	490.9	700.8	1391.4	1608.1	2231.0	2735.4	2847.2	2914.9	2965.6	2972.4	2972.4
27.5°	440.1	629.7	1377.9	1614.8	2292.0	2748.9	2837.0	2884.4	2908.0	2921.6	2921.6
30°	396.1	562.0	1344.0	1601.3	2319.0	2735.4	2806.5	2830.2	2853.9	2874.2	2884.4
32.5°	362.2	497.6	1293.2	1574.2	2322.4	2701.6	2752.3	2765.9	2799.7	2847.2	2864.1
35°	331.7	433.3	1235.7	1537.0	2302.0	2647.4	2681.3	2694.8	2762.5	2833.6	2857.3
37.5°	301.3	386.0	1161.2	1472.7	2271.6	2583.1	2606.8	2630.5	2735.4	2820.1	2847.2
40°	270.8	345.3	1073.2	1401.5	2224.2	2505.2	2525.5	2562.7	2701.6	2799.7	2826.8
42.5°	247.1	311.5	978.4	1327.1	2163.2	2417.2	2447.7	2501.8	2661.0	2765.9	2796.3
45°	226.9	277.6	876.8	1225.5	2085.4	2325.8	2369.8	2444.3	2613.5	2715.1	2742.2
47.5°	206.5	253.9	771.9	1120.6	2000.8	2234.4	2292.0	2376.5	2549.2	2647.4	2671.1
50°	189.6	230.2	666.9	1008.9	1909.4	2136.2	2203.9	2292.0	2468.0	2559.4	2589.9
52.5°	176.0	209.9	568.8	897.2	1804.4	2034.6	2112.5	2203.9	2369.8	2457.8	2478.2
55°	162.5	192.9	484.1	778.6	1696.1	1926.3	2011.0	2098.9	2261.5	2336.0	2349.4
57.5°	155.7	179.5	413.1	666.9	1581.0	1804.4	1899.2	1980.5	2132.8	2190.3	2203.9
60°	145.5	169.3	358.8	572.1	1455.7	1689.3	1770.6	1851.8	1980.5	2027.9	2038.0
62.5°	135.4	162.5	318.2	480.7	1327.1	1553.9	1635.1	1709.6	1818.0	1851.8	1865.3
65°	128.6	155.7	287.8	413.1	1195.1	1411.7	1492.9	1557.3	1645.3	1679.1	1686.0
67.5°	121.9	149.0	264.1	355.5	1063.0	1269.5	1330.5	1391.4	1459.1	1492.9	1496.3
70°	111.7	142.2	243.8	314.8	927.6	1107.0	1157.9	1222.2	1276.3	1293.2	1303.4
72.5°	105.0	132.0	230.2	284.3	788.8	951.3	998.7	1036.0	1083.4	1100.3	1100.3
75°	94.8	118.5	216.7	253.9	646.6	778.6	819.3	856.5	893.8	900.5	890.3
77.5°	84.6	105.0	186.2	213.3	504.4	616.2	650.0	670.3	700.8	707.6	711.0
80°	71.1	91.4	145.5	165.9	365.7	453.6	477.4	494.3	521.4	521.4	528.1
82.5°	54.2	71.1	105.0	118.5	247.1	311.5	331.7	341.9	358.8	358.8	358.8
85°	33.8	44.0	67.7	77.9	149.0	189.6	203.1	206.5	220.0	223.4	223.4
87.5°	16.9	23.7	44.0	47.4	77.9	98.1	98.1	105.0	105.0	101.6	98.1
90°	5.3	9.5	13.8	14.8	23.2	34.5	40.1	35.7	26.7	20.1	20.1
92.5°	21.1	57.0	92.9	101.9	143.2	198.4	226.0	198.1	142.2	100.4	96.3
95°	50.7	116.4	182.2	198.6	352.6	558.0	660.7	589.5	447.3	340.6	328.5
97.5°	87.6	145.6	203.6	218.1	475.0	817.4	988.7	943.7	853.8	786.4	763.4
100°	116.2	168.8	221.3	234.5	519.5	899.5	1089.5	1092.8	1099.3	1104.3	1076.9
102.5°	140.5	189.5	238.6	250.9	539.9	925.4	1118.1	1175.3	1289.8	1375.7	1352.3
105°	181.7	223.2	264.7	275.1	555.0	928.3	1114.9	1243.3	1500.0	1692.6	1680.0
107.5°	224.0	262.6	301.4	311.1	557.9	887.0	1051.5	1230.6	1588.8	1857.5	1860.5
110°	252.5	287.4	322.4	331.1	553.6	850.4	998.7	1198.9	1599.4	1899.7	1912.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	280.4	313.7	347.0	355.4	553.8	818.3	950.6	1155.5	1565.4	1872.8	1892.9
115°	322.7	353.4	384.2	391.9	558.9	781.7	893.1	1090.5	1485.2	1781.4	1809.4
117.5°	364.4	392.3	420.2	427.2	569.3	758.7	853.4	1031.6	1387.9	1655.1	1686.1
120°	388.7	415.0	441.2	447.8	577.7	751.0	837.6	1000.4	1325.9	1570.1	1600.3
122.5°	412.5	439.0	465.5	472.2	589.9	746.9	825.4	972.0	1265.2	1485.1	1514.8
125°	448.9	473.1	497.3	503.3	606.3	743.6	812.3	936.8	1185.8	1372.6	1400.0
127.5°	478.5	502.9	527.3	533.4	622.7	741.6	801.2	908.1	1121.9	1282.3	1305.4
130°	494.4	520.7	546.9	553.5	634.6	742.8	797.0	892.1	1082.5	1225.2	1246.6
132.5°	510.7	537.0	563.3	569.9	644.4	743.6	793.2	878.5	1048.9	1176.6	1195.8
135°	535.0	558.9	582.9	588.8	654.9	742.9	786.9	858.3	1001.0	1108.1	1124.5
137.5°	559.8	583.5	607.3	613.2	670.7	747.5	785.9	846.2	966.9	1057.3	1070.8
140°	580.4	602.2	624.0	629.5	680.4	748.2	782.1	834.2	938.5	1016.7	1029.3
142.5°	596.3	616.4	636.7	641.7	688.5	750.9	782.1	827.9	919.5	988.1	999.0
145°	620.5	638.1	655.7	660.2	699.1	750.9	776.9	814.3	889.2	945.3	953.5
147.5°	644.9	661.9	679.1	683.4	714.6	756.2	776.9	806.4	865.3	909.5	916.3
150°	660.7	676.1	691.7	695.5	722.7	758.8	776.9	801.8	851.5	888.8	894.4
152.5°	677.1	688.8	700.6	703.5	728.0	760.6	776.9	798.2	840.6	872.5	876.7
155°	701.3	710.0	718.7	720.9	739.6	764.4	776.9	793.8	827.6	852.9	855.7
157.5°	719.3	727.8	736.2	738.3	751.2	768.4	776.9	790.1	816.3	836.0	838.0
160°	731.5	738.1	744.6	746.3	756.5	770.1	776.9	788.2	810.7	827.6	828.7
162.5°	743.6	748.6	753.5	754.7	762.1	772.0	776.9	786.4	805.4	819.6	820.6
165°	756.8	761.3	765.7	766.8	770.2	774.7	776.9	783.7	797.3	807.5	808.6
167.5°	769.0	771.0	773.2	773.7	776.5	780.2	782.1	786.6	795.5	802.2	802.7
170°	776.9	779.0	781.1	781.6	781.8	782.0	782.1	786.6	795.5	802.2	802.2
172.5°	781.1	781.5	782.0	782.1	782.1	782.1	782.1	785.6	792.7	798.0	797.6
175°	786.9	786.9	786.9	786.9	785.3	783.1	782.1	784.3	788.9	792.2	792.2
177.5°	786.9	786.9	786.9	786.9	785.7	784.1	783.2	785.0	788.5	791.2	790.7
180°	786.9	786.9	786.9	786.9	786.9	786.9	786.9	786.9	786.9	786.9	786.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1052.9	1052.9
2.5°	1123.9	1117.2
5°	1445.6	1452.4
7.5°	1946.6	1943.2
10°	2420.6	2451.0
12.5°	2765.9	2772.7
15°	2975.8	2989.4
17.5°	3057.0	3060.4
20°	3060.4	3053.7
22.5°	3023.2	3016.4
25°	2979.2	2975.8
27.5°	2938.5	2942.0
30°	2921.6	2931.8
32.5°	2921.6	2938.5
35°	2928.4	2945.3
37.5°	2925.0	2945.3
40°	2911.5	2935.1
42.5°	2874.2	2891.1
45°	2816.7	2837.0
47.5°	2742.2	2755.8
50°	2647.4	2661.0
52.5°	2528.9	2532.3
55°	2386.7	2400.3
57.5°	2234.4	2237.7
60°	2065.1	2075.3
62.5°	1885.7	1885.7
65°	1696.1	1702.9
67.5°	1499.8	1516.7
70°	1300.0	1303.4
72.5°	1103.6	1103.6
75°	900.5	903.9
77.5°	707.6	707.6
80°	524.8	528.1
82.5°	362.2	369.0
85°	226.9	226.9
87.5°	105.0	94.8
90°	20.1	20.1
92.5°	80.4	64.4
95°	280.2	231.8
97.5°	671.3	579.4
100°	967.3	857.7
102.5°	1258.4	1164.5
105°	1629.6	1579.1
107.5°	1872.7	1884.9
110°	1965.3	2018.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1973.7	2054.4
115°	1921.4	2033.3
117.5°	1810.3	1934.5
120°	1721.0	1841.6
122.5°	1633.9	1752.8
125°	1509.6	1619.3
127.5°	1397.9	1490.4
130°	1332.1	1417.5
132.5°	1272.3	1348.8
135°	1190.5	1256.4
137.5°	1124.8	1178.8
140°	1079.7	1130.2
142.5°	1042.5	1085.9
145°	986.4	1019.3
147.5°	943.5	970.7
150°	916.4	938.5
152.5°	893.3	910.0
155°	866.8	877.8
157.5°	845.7	853.4
160°	833.2	837.6
162.5°	824.9	829.2
165°	813.1	817.6
167.5°	804.6	806.5
170°	802.2	802.2
172.5°	796.0	794.3
175°	792.2	792.2
177.5°	788.8	786.9
180°	786.9	786.9



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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	6.10	7.12	6.94	7.99	9.09	19.29	20.31	20.13	21.18	22.28
	3H	6.81	7.74	7.67	8.62	9.74	21.14	22.07	22.00	22.95	24.07
	4H	7.12	7.99	7.99	8.88	10.01	21.80	22.67	22.67	23.56	24.69
	6H	7.38	8.19	8.26	9.08	10.22	22.24	23.05	23.13	23.95	25.09
	8H	7.45	8.22	8.34	9.13	10.28	22.37	23.14	23.26	24.06	25.20
	12H	7.47	8.21	8.37	9.12	10.29	22.45	23.18	23.35	24.09	25.26
4H	2H	13.34	14.21	14.21	15.10	16.23	19.58	20.45	20.46	21.34	22.47
	3H	14.92	15.65	15.81	16.57	17.72	21.65	22.38	22.53	23.30	24.44
	4H	15.02	15.69	15.92	16.61	17.78	22.42	23.09	23.32	24.01	25.18
	6H	15.04	15.62	15.96	16.56	17.73	22.98	23.56	23.89	24.50	25.67
	8H	15.02	15.57	15.94	16.50	17.69	23.15	23.69	24.06	24.62	25.81
	12H	14.99	15.48	15.93	16.43	17.62	23.25	23.74	24.19	24.69	25.89
8H	4H	16.48	17.03	17.40	17.96	19.15	22.50	23.04	23.42	23.97	25.16
	6H	16.73	17.19	17.68	18.16	19.35	23.14	23.59	24.08	24.57	25.75
	8H	16.75	17.15	17.71	18.12	19.32	23.37	23.76	24.32	24.73	25.93
	12H	16.73	17.08	17.69	18.04	19.29	23.52	23.87	24.48	24.83	26.08
12H	4H	16.64	17.13	17.58	18.08	19.27	22.46	22.95	23.40	23.90	25.09
	6H	17.00	17.40	17.95	18.36	19.57	23.13	23.53	24.08	24.49	25.69
	8H	17.07	17.43	18.03	18.38	19.64	23.37	23.72	24.32	24.68	25.93