

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: P938287

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-2700K

Issue Date: 12/17/2024

**Test Information**

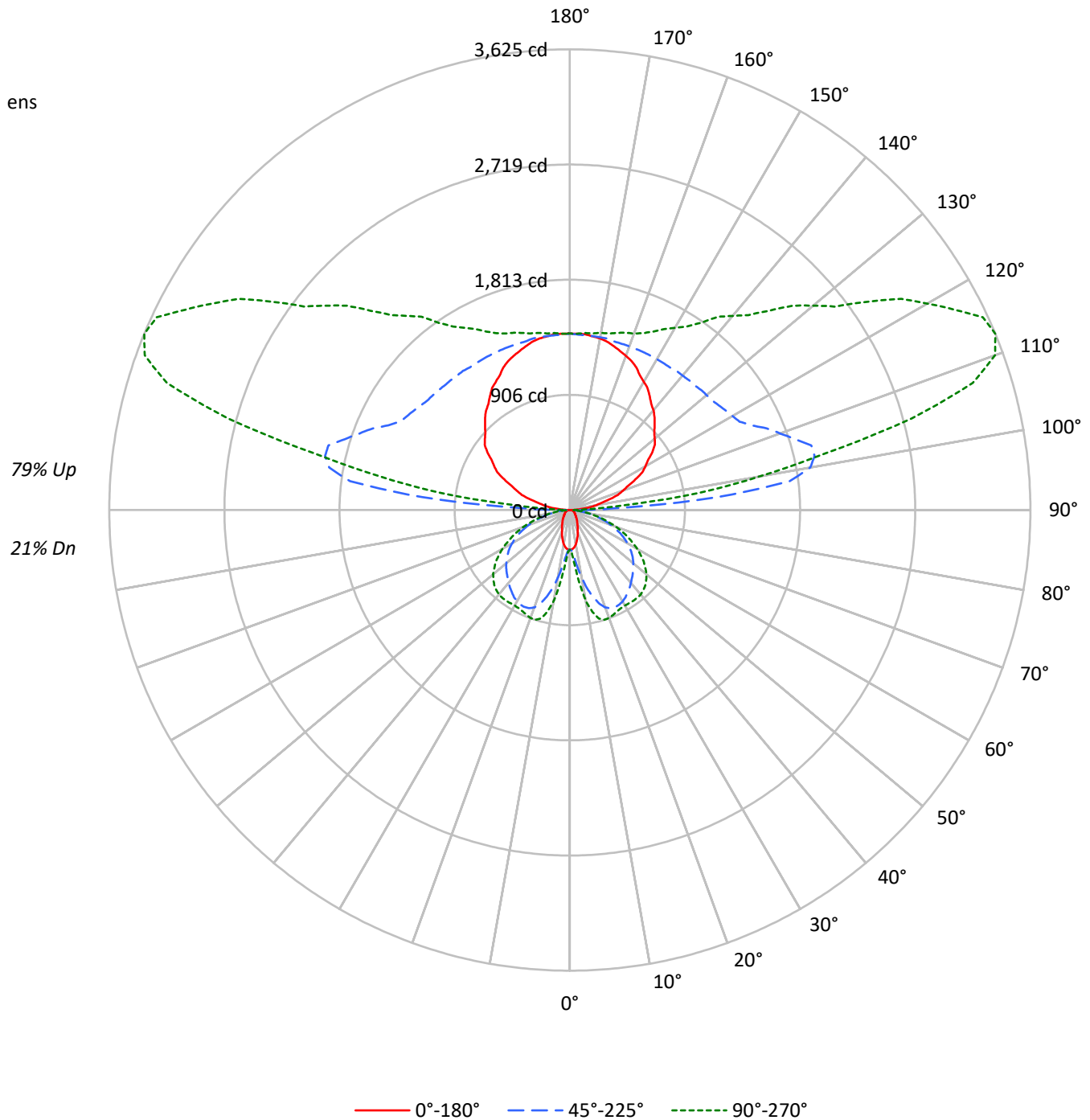
Test Method: LM-79-2019  
Report Number: P938287  
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11416.2 lumens  
Efficiency: N/A  
Efficacy: 136.9 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: Semi-Indirect  
  
Input Watts (W): 83.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	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°	1927	1927	1927
5°	1883	2227	2591
10°	1707	3246	4295
15°	1450	4239	5186
20°	1180	4912	5286
25°	984	5138	5179
30°	829	5170	5168
35°	733	5082	5302
40°	639	4970	5440
45°	577	4886	5461
50°	529	4811	5371
55°	507	4702	5133
60°	518	4494	4757
65°	537	4177	4240
70°	572	3640	3583
75°	632	2965	2796
80°	684	2053	1884
85°	602	1090	964

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5461 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.3	0.4
10°-20°	178.6	1.6
20°-30°	312.4	2.7
30°-40°	402.2	3.5
40°-50°	449.2	3.9
50°-60°	430.3	3.8
60°-70°	341.0	3.0
70°-80°	200.5	1.8
80°-90°	61.0	0.5
90°-100°	676.8	5.9
100°-110°	1779.3	15.6
110°-120°	1844.9	16.2
120°-130°	1479.9	13.0
130°-140°	1161.2	10.2
140°-150°	891.2	7.8
150°-160°	641.8	5.6
160°-170°	392.7	3.4
170°-180°	132.7	1.2
0°-30°	531.4	4.7
0°-40°	933.6	8.2
0°-60°	1813.1	15.9
0°-90°	2415.6	21.2
90°-120°	4301.0	37.7
90°-150°	7833.3	68.6
90°-180°	9001.0	78.8
0°-180°	11416.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	312	312	312	312	312	
5°	304	326	367	415	430	28
15°	227	420	707	858	885	63
25°	145	476	842	880	881	67
35°	98	455	793	838	872	61
45°	67	363	701	804	840	52
55°	48	230	595	691	710	44
65°	38	122	442	497	504	38
75°	28	75	242	266	268	29
85°	10	23	60	66	67	11
90°	9	26	71	36	36	8
95°	89	350	1166	601	409	99
105°	320	486	1967	2986	2786	340
115°	569	691	1576	3143	3588	562
125°	792	888	1433	2422	2857	703
135°	944	1039	1388	1955	2217	730
145°	1095	1165	1371	1668	1798	686
155°	1237	1272	1371	1505	1549	569
165°	1335	1353	1371	1425	1442	377
175°	1388	1388	1380	1398	1398	132
180°	1388	1388	1388	1388	1388	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	311.5	311.5	311.5	311.5	311.5	311.5	311.5	311.5	311.5	311.5	311.5
2.5°	311.5	311.5	313.5	314.5	316.6	317.6	319.6	321.6	327.6	328.6	330.6
5°	303.6	307.6	320.6	325.6	339.6	358.7	366.6	379.7	406.8	414.7	419.8
7.5°	291.5	300.6	332.6	340.6	375.7	425.8	446.8	474.9	517.9	539.0	556.1
10°	272.5	291.5	348.6	367.7	424.8	500.9	540.0	579.1	644.2	673.2	684.3
12.5°	251.5	282.6	365.6	391.7	473.9	585.1	632.2	675.3	749.4	788.4	794.4
15°	227.4	269.5	381.7	419.8	526.0	655.2	707.3	760.4	829.6	857.6	864.6
17.5°	206.4	259.5	396.7	436.8	566.0	718.3	771.4	815.5	871.6	890.6	895.6
20°	180.4	243.4	406.8	458.9	608.2	764.4	815.5	849.6	887.6	899.7	901.7
22.5°	161.3	226.4	412.7	466.8	636.1	792.4	835.5	862.5	888.6	892.6	893.6
25°	145.3	207.4	411.7	475.9	660.2	809.4	842.5	862.5	877.6	879.6	879.6
27.5°	130.3	186.4	407.8	477.9	678.3	813.5	839.5	853.6	860.5	864.6	864.6
30°	117.2	166.3	397.7	473.9	686.2	809.4	830.6	837.5	844.5	850.6	853.6
32.5°	107.2	147.3	382.7	465.8	687.2	799.5	814.5	818.5	828.5	842.5	847.6
35°	98.2	128.3	365.6	454.9	681.3	783.5	793.4	797.5	817.5	838.5	845.5
37.5°	89.1	114.2	343.6	435.8	672.2	764.4	771.4	778.5	809.4	834.5	842.5
40°	80.2	102.2	317.6	414.7	658.3	741.3	747.4	758.4	799.5	828.5	836.5
42.5°	73.1	92.1	289.5	392.7	640.1	715.3	724.3	740.3	787.4	818.5	827.5
45°	67.1	82.2	259.5	362.6	617.1	688.2	701.3	723.3	773.4	803.5	811.4
47.5°	61.2	75.1	228.4	331.6	592.1	661.2	678.3	703.3	754.4	783.5	790.4
50°	56.1	68.1	197.4	298.5	565.0	632.2	652.2	678.3	730.4	757.4	766.4
52.5°	52.1	62.2	168.3	265.5	534.0	602.1	625.2	652.2	701.3	727.4	733.4
55°	48.1	57.1	143.2	230.4	501.9	570.0	595.1	621.1	669.2	691.2	695.3
57.5°	46.1	53.1	122.2	197.4	467.8	534.0	562.0	586.0	631.2	648.2	652.2
60°	43.1	50.1	106.2	169.3	430.8	499.9	524.0	548.0	586.0	600.1	603.1
62.5°	40.0	48.1	94.2	142.2	392.7	459.9	483.9	506.0	537.9	548.0	552.0
65°	38.0	46.1	85.2	122.2	353.7	417.7	441.8	460.8	486.8	496.9	498.9
67.5°	36.1	44.1	78.2	105.2	314.5	375.7	393.7	411.7	431.8	441.8	442.8
70°	33.1	42.0	72.1	93.1	274.5	327.6	342.6	361.6	377.7	382.7	385.8
72.5°	31.1	39.0	68.1	84.2	233.5	281.5	295.5	306.6	320.6	325.6	325.6
75°	28.1	35.1	64.1	75.1	191.3	230.4	242.4	253.5	264.4	266.5	263.4
77.5°	25.0	31.1	55.1	63.1	149.3	182.4	192.3	198.4	207.4	209.4	210.4
80°	21.0	27.1	43.1	49.1	108.2	134.3	141.2	146.3	154.3	154.3	156.3
82.5°	16.0	21.0	31.1	35.1	73.1	92.1	98.2	101.2	106.2	106.2	106.2
85°	10.1	13.0	20.0	23.0	44.1	56.1	60.2	61.2	65.1	66.1	66.1
87.5°	5.0	7.0	13.0	14.0	23.0	29.1	29.1	31.1	31.1	30.1	29.1
90°	9.4	16.8	24.2	26.1	41.0	60.9	70.8	62.9	47.2	35.5	35.5
92.5°	37.3	100.6	164.0	179.9	252.9	350.2	398.8	349.5	251.0	177.1	170.0
95°	89.4	205.4	321.4	350.4	622.2	984.5	1165.7	1040.2	789.2	601.0	579.7
97.5°	154.7	257.0	359.3	384.9	838.0	1442.3	1744.4	1665.1	1506.4	1387.5	1346.9
100°	205.0	297.8	390.5	413.7	916.6	1587.1	1922.4	1928.2	1939.8	1948.5	1900.2
102.5°	247.9	334.5	421.0	442.6	952.7	1632.6	1972.7	2073.7	2275.8	2427.4	2385.9
105°	320.5	393.8	467.1	485.5	979.4	1637.8	1967.1	2193.6	2646.7	2986.5	2964.2
107.5°	395.1	463.4	531.8	548.8	984.2	1564.9	1855.2	2171.3	2803.2	3277.2	3282.6
110°	445.4	507.2	568.8	584.3	976.9	1500.3	1762.0	2115.3	2821.9	3351.7	3374.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	494.8	553.6	612.3	627.1	977.2	1443.9	1677.3	2038.8	2761.9	3304.2	3339.9
115°	569.3	623.6	677.9	691.4	986.1	1379.2	1575.7	1924.0	2620.6	3143.0	3192.4
117.5°	642.9	692.2	741.5	753.9	1004.6	1338.7	1505.9	1820.2	2448.8	2920.3	2975.1
120°	685.8	732.3	778.7	790.2	1019.4	1325.1	1477.9	1765.1	2339.5	2770.3	2823.5
122.5°	727.8	774.6	821.4	833.1	1040.8	1317.9	1456.5	1715.1	2232.3	2620.3	2672.8
125°	792.0	834.6	877.4	888.0	1069.7	1312.0	1433.1	1652.9	2092.2	2421.8	2470.1
127.5°	844.2	887.2	930.4	941.1	1098.6	1308.5	1413.5	1602.2	1979.5	2262.4	2303.2
130°	872.2	918.6	965.0	976.6	1119.8	1310.7	1406.2	1574.1	1909.9	2161.8	2199.5
132.5°	901.1	947.5	993.9	1005.5	1136.8	1312.0	1399.6	1549.9	1850.6	2076.1	2109.8
135°	943.9	986.1	1028.5	1039.0	1155.5	1310.7	1388.4	1514.3	1766.1	1954.9	1984.0
137.5°	987.7	1029.6	1071.4	1081.9	1183.4	1318.8	1386.5	1493.0	1705.8	1865.5	1889.3
140°	1024.1	1062.6	1101.1	1110.7	1200.5	1320.2	1380.1	1472.0	1655.8	1793.8	1816.0
142.5°	1052.0	1087.6	1123.3	1132.2	1214.8	1325.0	1380.1	1460.8	1622.3	1743.4	1762.5
145°	1094.9	1126.0	1157.1	1164.8	1233.4	1325.0	1370.7	1436.7	1568.9	1668.0	1682.4
147.5°	1137.7	1168.0	1198.2	1205.8	1260.7	1334.0	1370.7	1422.7	1526.6	1604.6	1616.6
150°	1165.7	1193.0	1220.3	1227.2	1275.0	1338.8	1370.7	1414.6	1502.4	1568.2	1578.0
152.5°	1194.6	1215.3	1236.0	1241.2	1284.3	1341.9	1370.7	1408.1	1483.1	1539.3	1546.7
155°	1237.4	1252.8	1268.1	1271.9	1304.9	1348.8	1370.7	1400.5	1460.1	1504.9	1509.7
157.5°	1269.1	1284.0	1299.0	1302.7	1325.4	1355.6	1370.7	1393.9	1440.3	1475.1	1478.5
160°	1290.6	1302.2	1313.7	1316.6	1334.6	1358.6	1370.7	1390.6	1430.4	1460.1	1462.1
162.5°	1312.0	1320.7	1329.4	1331.6	1344.6	1362.0	1370.7	1387.4	1421.0	1446.2	1448.1
165°	1335.3	1343.2	1351.0	1353.0	1358.8	1366.7	1370.7	1382.7	1406.8	1424.8	1426.8
167.5°	1356.8	1360.4	1364.2	1365.1	1370.1	1376.8	1380.1	1387.9	1403.7	1415.4	1416.2
170°	1370.7	1374.4	1378.2	1379.1	1379.4	1379.9	1380.1	1387.9	1403.7	1415.4	1415.4
172.5°	1378.2	1379.0	1379.9	1380.1	1380.1	1380.1	1380.1	1386.2	1398.7	1407.9	1407.2
175°	1388.4	1388.4	1388.4	1388.4	1385.6	1382.0	1380.1	1383.9	1391.8	1397.7	1397.7
177.5°	1388.4	1388.4	1388.4	1388.4	1386.2	1383.3	1381.9	1384.9	1391.2	1395.9	1395.1
180°	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	311.5	311.5
2.5°	332.6	330.6
5°	427.8	429.8
7.5°	576.1	575.1
10°	716.3	725.3
12.5°	818.5	820.5
15°	880.7	884.6
17.5°	904.7	905.7
20°	905.7	903.7
22.5°	894.6	892.6
25°	881.7	880.7
27.5°	869.6	870.6
30°	864.6	867.6
32.5°	864.6	869.6
35°	866.6	871.6
37.5°	865.6	871.6
40°	861.5	868.6
42.5°	850.6	855.6
45°	833.6	839.5
47.5°	811.4	815.5
50°	783.5	787.4
52.5°	748.4	749.4
55°	706.3	710.3
57.5°	661.2	662.2
60°	611.1	614.1
62.5°	558.1	558.1
65°	501.9	503.9
67.5°	443.8	448.8
70°	384.8	385.8
72.5°	326.6	326.6
75°	266.5	267.5
77.5°	209.4	209.4
80°	155.3	156.3
82.5°	107.2	109.2
85°	67.1	67.1
87.5°	31.1	28.1
90°	35.5	35.5
92.5°	141.8	113.6
95°	494.3	409.1
97.5°	1184.5	1022.2
100°	1706.7	1513.3
102.5°	2220.3	2054.6
105°	2875.2	2786.1
107.5°	3304.1	3325.6
110°	3467.7	3560.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3482.3	3624.7
115°	3389.9	3587.5
117.5°	3194.2	3413.3
120°	3036.4	3249.3
122.5°	2882.7	3092.7
125°	2663.5	2856.9
127.5°	2466.4	2629.6
130°	2350.3	2501.0
132.5°	2244.8	2379.8
135°	2100.5	2216.8
137.5°	1984.6	2079.8
140°	1905.0	1994.1
142.5°	1839.2	1915.8
145°	1740.4	1798.4
147.5°	1664.6	1712.7
150°	1616.9	1655.8
152.5°	1576.1	1605.6
155°	1529.2	1548.7
157.5°	1492.2	1505.9
160°	1470.0	1477.9
162.5°	1455.5	1462.9
165°	1434.5	1442.4
167.5°	1419.6	1422.9
170°	1415.4	1415.4
172.5°	1404.4	1401.5
175°	1397.7	1397.7
177.5°	1391.7	1388.4
180°	1388.4	1388.4



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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	0.00	0.37	0.87	1.52	3.15	12.87	13.53	14.04	14.69	16.32
	3H	0.39	0.99	1.57	2.15	3.79	14.69	15.28	15.86	16.45	18.09
	4H	0.68	1.25	1.87	2.41	4.06	15.32	15.89	16.50	17.05	18.70
	6H	0.92	1.44	2.11	2.61	4.27	15.74	16.26	16.93	17.42	19.08
	8H	0.98	1.48	2.18	2.66	4.31	15.85	16.35	17.04	17.52	19.18
	12H	1.00	1.47	2.19	2.64	4.31	15.91	16.38	17.10	17.55	19.22
4H	2H	6.89	7.45	8.08	8.62	10.26	13.12	13.69	14.31	14.85	16.50
	3H	8.44	8.91	9.63	10.10	11.76	15.14	15.62	16.34	16.80	18.46
	4H	8.52	8.96	9.72	10.13	11.81	15.90	16.33	17.09	17.51	19.19
	6H	8.52	8.90	9.72	10.09	11.76	16.42	16.79	17.62	17.99	19.66
	8H	8.49	8.84	9.69	10.03	11.72	16.57	16.92	17.77	18.11	19.80
	12H	8.44	8.76	9.65	9.96	11.64	16.65	16.97	17.87	18.17	19.86
8H	4H	9.95	10.30	11.14	11.48	13.17	15.94	16.29	17.14	17.48	19.16
	6H	10.18	10.47	11.40	11.70	13.38	16.56	16.84	17.77	18.07	19.76
	8H	10.19	10.45	11.42	11.65	13.35	16.77	17.02	17.99	18.23	19.93
	12H	10.15	10.37	11.38	11.58	13.31	16.90	17.12	18.13	18.33	20.06
12H	4H	10.08	10.40	11.29	11.59	13.28	15.88	16.20	17.10	17.40	19.09
	6H	10.43	10.69	11.66	11.89	13.59	16.54	16.79	17.76	17.99	19.70
	8H	10.49	10.71	11.72	11.92	13.65	16.75	16.97	17.98	18.18	19.91