

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: P938289

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938289
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-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

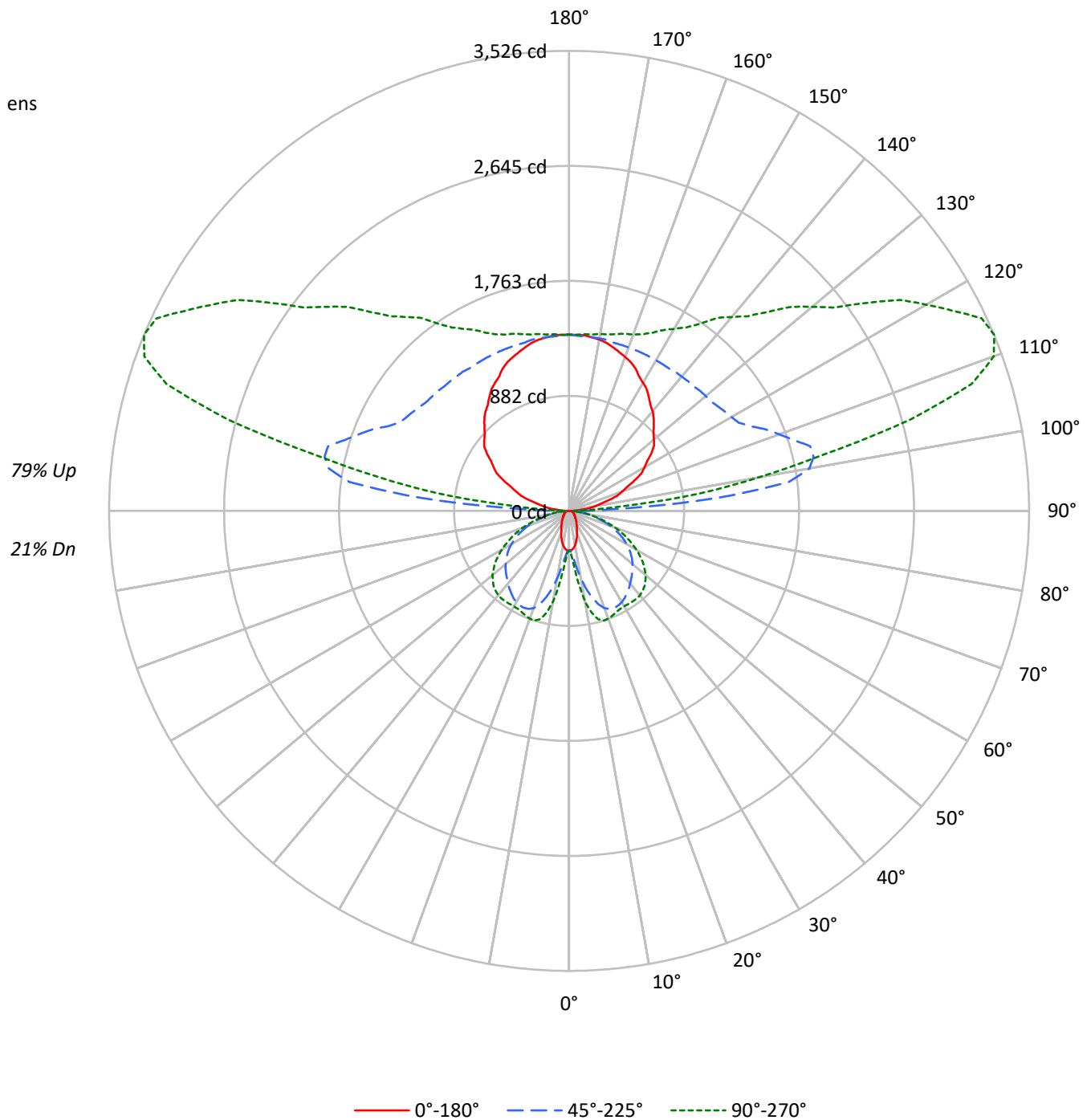
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11106.7 lumens
Efficiency: N/A
Efficacy: 133.2 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_{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: P938289
CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-3500K

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°	1875	1875	1875
5°	1832	2167	2520
10°	1660	3158	4178
15°	1410	4124	5046
20°	1148	4779	5143
25°	958	4999	5038
30°	807	5029	5028
35°	713	4944	5158
40°	621	4835	5293
45°	562	4754	5314
50°	515	4681	5225
55°	493	4575	4994
60°	505	4372	4628
65°	523	4064	4125
70°	557	3541	3486
75°	614	2886	2721
80°	664	1998	1832
85°	584	1059	938

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5314 cd/sqm



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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-6-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	0.4
10°-20°	173.8	1.6
20°-30°	304.0	2.7
30°-40°	391.3	3.5
40°-50°	437.1	3.9
50°-60°	418.6	3.8
60°-70°	331.7	3.0
70°-80°	195.1	1.8
80°-90°	59.4	0.5
90°-100°	658.4	5.9
100°-110°	1731.1	15.6
110°-120°	1794.9	16.2
120°-130°	1439.7	13.0
130°-140°	1129.7	10.2
140°-150°	867.1	7.8
150°-160°	624.4	5.6
160°-170°	382.1	3.4
170°-180°	129.1	1.2
0°-30°	517.0	4.7
0°-40°	908.3	8.2
0°-60°	1764.0	15.9
0°-90°	2350.1	21.2
90°-120°	4184.4	37.7
90°-150°	7621.0	68.6
90°-180°	8757.0	78.8
0°-180°	11106.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	303	303	303	303	303	
5°	295	317	357	404	418	27
15°	221	408	688	834	861	62
25°	141	463	820	856	857	65
35°	96	442	772	816	848	60
45°	65	353	682	782	817	51
55°	47	224	579	672	691	43
65°	37	119	430	483	490	37
75°	27	73	236	259	260	29
85°	10	22	58	64	65	10
90°	9	25	69	34	34	8
95°	87	341	1134	585	398	97
105°	312	472	1914	2906	2711	331
115°	554	673	1533	3058	3490	547
125°	770	864	1394	2356	2780	684
135°	918	1011	1351	1902	2157	711
145°	1065	1133	1334	1623	1750	667
155°	1204	1237	1334	1464	1507	553
165°	1299	1316	1334	1386	1403	367
175°	1351	1351	1343	1360	1360	128
180°	1351	1351	1351	1351	1351	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	303.1	303.1	303.1	303.1	303.1	303.1	303.1	303.1	303.1	303.1	303.1
2.5°	303.1	303.1	305.0	306.0	308.0	309.0	311.0	312.9	318.7	319.7	321.6
5°	295.4	299.2	311.9	316.8	330.4	348.9	356.7	369.4	395.7	403.5	408.4
7.5°	283.6	292.4	323.5	331.4	365.5	414.2	434.7	462.0	503.9	524.4	541.0
10°	265.1	283.6	339.2	357.8	413.3	487.3	525.4	563.4	626.7	654.9	665.7
12.5°	244.7	274.9	355.7	381.1	461.1	569.2	615.0	657.0	729.1	767.1	772.9
15°	221.2	262.2	371.3	408.4	511.7	637.4	688.1	739.8	807.1	834.3	841.2
17.5°	200.8	252.4	386.0	425.0	550.7	698.8	750.5	793.4	848.0	866.5	871.3
20°	175.5	236.8	395.7	446.4	591.7	743.7	793.4	826.6	863.6	875.3	877.2
22.5°	156.9	220.3	401.6	454.2	618.9	770.9	812.9	839.2	864.5	868.4	869.4
25°	141.4	201.7	400.6	463.0	642.4	787.5	819.7	839.2	853.8	855.7	855.7
27.5°	126.7	181.3	396.7	464.9	659.9	791.5	816.8	830.4	837.2	841.2	841.2
30°	114.1	161.8	386.9	461.1	667.6	787.5	808.0	814.8	821.6	827.5	830.4
32.5°	104.3	143.3	372.3	453.2	668.6	777.8	792.4	796.3	806.0	819.7	824.6
35°	95.5	124.8	355.7	442.5	662.8	762.2	771.9	775.9	795.4	815.8	822.6
37.5°	86.7	111.1	334.3	424.0	654.0	743.7	750.5	757.4	787.5	811.9	819.7
40°	78.0	99.4	309.0	403.5	640.4	721.2	727.1	737.8	777.8	806.0	813.9
42.5°	71.1	89.6	281.7	382.1	622.8	695.9	704.7	720.3	766.1	796.3	805.0
45°	65.3	79.9	252.4	352.8	600.4	669.6	682.3	703.7	752.4	781.7	789.4
47.5°	59.5	73.1	222.2	322.6	576.1	643.3	659.9	684.2	733.9	762.2	769.0
50°	54.6	66.3	192.1	290.4	549.7	615.0	634.5	659.9	710.6	736.8	745.6
52.5°	50.7	60.5	163.8	258.3	519.5	585.8	608.2	634.5	682.3	707.7	713.5
55°	46.8	55.5	139.3	224.1	488.3	554.6	579.0	604.3	651.1	672.5	676.5
57.5°	44.9	51.6	118.9	192.1	455.1	519.5	546.8	570.2	614.1	630.6	634.5
60°	42.0	48.7	103.3	164.7	419.1	486.3	509.8	533.1	570.2	583.8	586.7
62.5°	39.0	46.8	91.7	138.4	382.1	447.4	470.7	492.3	523.4	533.1	537.0
65°	37.0	44.9	82.8	118.9	344.1	406.4	429.8	448.4	473.6	483.4	485.4
67.5°	35.1	42.9	76.1	102.3	306.0	365.5	383.0	400.6	420.1	429.8	430.8
70°	32.2	40.9	70.2	90.6	267.1	318.7	333.3	351.8	367.4	372.3	375.3
72.5°	30.2	38.0	66.3	81.9	227.1	273.8	287.5	298.3	311.9	316.8	316.8
75°	27.3	34.1	62.4	73.1	186.1	224.1	235.9	246.6	257.3	259.3	256.3
77.5°	24.3	30.2	53.6	61.4	145.3	177.4	187.1	193.0	201.7	203.7	204.7
80°	20.4	26.4	42.0	47.8	105.2	130.6	137.4	142.3	150.1	150.1	152.0
82.5°	15.6	20.4	30.2	34.1	71.1	89.6	95.5	98.5	103.3	103.3	103.3
85°	9.8	12.7	19.5	22.4	42.9	54.6	58.5	59.5	63.4	64.3	64.3
87.5°	4.8	6.8	12.7	13.7	22.4	28.3	28.3	30.2	30.2	29.3	28.3
90°	9.1	16.4	23.5	25.4	39.9	59.2	68.9	61.2	45.9	34.5	34.5
92.5°	36.2	97.9	159.6	175.0	246.0	340.7	388.0	340.0	244.2	172.3	165.4
95°	87.0	199.8	312.7	340.9	605.3	957.9	1134.1	1012.0	767.8	584.7	564.0
97.5°	150.5	250.0	349.5	374.4	815.3	1403.2	1697.1	1620.0	1465.6	1349.9	1310.4
100°	199.4	289.7	379.9	402.5	891.8	1544.1	1870.3	1875.9	1887.2	1895.7	1848.7
102.5°	241.2	325.4	409.6	430.6	926.8	1588.4	1919.2	2017.5	2214.1	2361.5	2321.2
105°	311.8	383.1	454.5	472.3	952.8	1593.4	1913.8	2134.1	2574.9	2905.5	2883.8
107.5°	384.4	450.9	517.3	533.9	957.6	1522.5	1805.0	2112.4	2727.3	3188.4	3193.6
110°	433.3	493.4	553.4	568.4	950.4	1459.6	1714.3	2058.0	2745.4	3260.9	3283.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	481.4	538.6	595.7	610.1	950.7	1404.8	1631.8	1983.5	2687.0	3214.7	3249.3
115°	553.9	606.7	659.5	672.7	959.4	1341.8	1533.0	1871.8	2549.5	3057.8	3105.8
117.5°	625.5	673.5	721.4	733.4	977.3	1302.4	1465.0	1770.8	2382.4	2841.1	2894.4
120°	667.3	712.4	757.6	768.8	991.8	1289.2	1437.8	1717.3	2276.1	2695.2	2746.9
122.5°	708.0	753.6	799.1	810.5	1012.6	1282.2	1417.0	1668.6	2171.8	2549.2	2600.3
125°	770.5	812.0	853.6	864.0	1040.7	1276.5	1394.3	1608.1	2035.5	2356.1	2403.1
127.5°	821.3	863.2	905.1	915.6	1068.8	1273.1	1375.2	1558.7	1925.8	2201.1	2240.8
130°	848.6	893.7	938.9	950.1	1089.4	1275.2	1368.0	1531.4	1858.2	2103.2	2139.8
132.5°	876.7	921.8	967.0	978.2	1106.0	1276.5	1361.6	1507.9	1800.4	2019.8	2052.6
135°	918.3	959.4	1000.6	1010.9	1124.1	1275.2	1350.8	1473.3	1718.2	1902.0	1930.2
137.5°	961.0	1001.7	1042.4	1052.5	1151.4	1283.1	1348.9	1452.5	1659.6	1814.9	1838.1
140°	996.3	1033.8	1071.2	1080.6	1167.9	1284.4	1342.6	1432.1	1611.0	1745.2	1766.8
142.5°	1023.5	1058.1	1092.8	1101.5	1181.9	1289.1	1342.6	1421.2	1578.3	1696.1	1714.7
145°	1065.2	1095.5	1125.7	1133.2	1200.0	1289.1	1333.5	1397.8	1526.4	1622.8	1636.8
147.5°	1106.9	1136.3	1165.7	1173.1	1226.6	1297.9	1333.5	1384.1	1485.2	1561.1	1572.8
150°	1134.1	1160.7	1187.2	1193.9	1240.4	1302.5	1333.5	1376.3	1461.6	1525.7	1535.2
152.5°	1162.2	1182.4	1202.5	1207.6	1249.5	1305.5	1333.5	1370.0	1442.9	1497.6	1504.8
155°	1203.9	1218.8	1233.7	1237.4	1269.5	1312.2	1333.5	1362.5	1420.6	1464.1	1468.8
157.5°	1234.7	1249.2	1263.8	1267.4	1289.4	1318.8	1333.5	1356.1	1401.3	1435.1	1438.4
160°	1255.6	1266.9	1278.1	1280.9	1298.5	1321.8	1333.5	1352.9	1391.6	1420.6	1422.5
162.5°	1276.5	1284.9	1293.3	1295.5	1308.1	1325.1	1333.5	1349.8	1382.5	1407.0	1408.8
165°	1299.1	1306.8	1314.4	1316.3	1322.0	1329.7	1333.5	1345.3	1368.6	1386.2	1388.1
167.5°	1320.0	1323.6	1327.2	1328.1	1333.0	1339.4	1342.6	1350.3	1365.6	1377.0	1377.8
170°	1333.5	1337.1	1340.8	1341.7	1342.0	1342.5	1342.6	1350.3	1365.6	1377.0	1377.0
172.5°	1340.8	1341.6	1342.5	1342.6	1342.6	1342.6	1342.6	1348.7	1360.8	1369.8	1369.1
175°	1350.8	1350.8	1350.8	1350.8	1348.1	1344.5	1342.6	1346.4	1354.1	1359.8	1359.8
177.5°	1350.8	1350.8	1350.8	1350.8	1348.7	1345.8	1344.4	1347.4	1353.5	1358.1	1357.3
180°	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	303.1	303.1
2.5°	323.5	321.6
5°	416.2	418.1
7.5°	560.5	559.5
10°	696.9	705.6
12.5°	796.3	798.3
15°	856.8	860.7
17.5°	880.1	881.1
20°	881.1	879.2
22.5°	870.4	868.4
25°	857.8	856.8
27.5°	846.0	847.0
30°	841.2	844.1
32.5°	841.2	846.0
35°	843.1	848.0
37.5°	842.2	848.0
40°	838.2	845.1
42.5°	827.5	832.4
45°	811.0	816.8
47.5°	789.4	793.4
50°	762.2	766.1
52.5°	728.1	729.1
55°	687.1	691.1
57.5°	643.3	644.3
60°	594.6	597.5
62.5°	542.9	542.9
65°	488.3	490.2
67.5°	431.8	436.6
70°	374.3	375.3
72.5°	317.7	317.7
75°	259.3	260.3
77.5°	203.7	203.7
80°	151.1	152.0
82.5°	104.3	106.2
85°	65.3	65.3
87.5°	30.2	27.3
90°	34.5	34.5
92.5°	138.0	110.6
95°	480.9	398.0
97.5°	1152.4	994.5
100°	1660.5	1472.3
102.5°	2160.1	1999.0
105°	2797.2	2710.6
107.5°	3214.6	3235.5
110°	3373.7	3464.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3387.9	3526.5
115°	3298.0	3490.2
117.5°	3107.6	3320.8
120°	2954.1	3161.2
122.5°	2804.6	3008.8
125°	2591.3	2779.5
127.5°	2399.5	2558.4
130°	2286.5	2433.2
132.5°	2183.9	2315.3
135°	2043.5	2156.7
137.5°	1930.8	2023.5
140°	1853.4	1940.0
142.5°	1789.4	1863.9
145°	1693.2	1749.6
147.5°	1619.5	1666.3
150°	1573.1	1611.0
152.5°	1533.3	1562.0
155°	1487.7	1506.7
157.5°	1451.8	1465.0
160°	1430.1	1437.8
162.5°	1416.0	1423.3
165°	1395.7	1403.3
167.5°	1381.1	1384.3
170°	1377.0	1377.0
172.5°	1366.3	1363.5
175°	1359.8	1359.8
177.5°	1354.0	1350.8
180°	1350.8	1350.8



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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	0.27	0.78	1.43	3.06	12.77	13.44	13.94	14.59	16.22
	3H	0.30	0.89	1.47	2.06	3.70	14.59	15.19	15.77	16.35	17.99
	4H	0.59	1.15	1.77	2.32	3.96	15.23	15.79	16.41	16.95	18.60
	6H	0.83	1.35	2.02	2.51	4.17	15.64	16.16	16.83	17.33	18.99
	8H	0.89	1.39	2.08	2.56	4.21	15.75	16.25	16.95	17.43	19.08
	12H	0.90	1.37	2.10	2.54	4.22	15.81	16.28	17.01	17.46	19.13
4H	2H	6.79	7.36	7.98	8.52	10.17	13.02	13.59	14.21	14.75	16.40
	3H	8.34	8.81	9.54	10.00	11.66	15.05	15.52	16.24	16.71	18.37
	4H	8.43	8.86	9.62	10.04	11.72	15.80	16.24	17.00	17.41	19.09
	6H	8.43	8.80	9.63	10.00	11.66	16.32	16.70	17.52	17.90	19.56
	8H	8.40	8.75	9.60	9.94	11.62	16.48	16.83	17.68	18.02	19.70
	12H	8.34	8.66	9.56	9.86	11.55	16.56	16.88	17.77	18.07	19.76
8H	4H	9.85	10.20	11.05	11.39	13.07	15.84	16.19	17.04	17.38	19.07
	6H	10.08	10.37	11.30	11.60	13.28	16.46	16.75	17.68	17.98	19.66
	8H	10.10	10.35	11.32	11.56	13.26	16.67	16.92	17.90	18.13	19.83
	12H	10.06	10.28	11.28	11.48	13.21	16.81	17.03	18.03	18.23	19.96
12H	4H	9.98	10.30	11.20	11.50	13.19	15.79	16.10	17.00	17.30	18.99
	6H	10.34	10.59	11.56	11.80	13.50	16.44	16.69	17.66	17.90	19.60
	8H	10.40	10.62	11.62	11.82	13.55	16.66	16.88	17.88	18.08	19.81