

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: P937004

Luminaire Tested: SQ4-FB-050U-125D-B40-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937004
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-B40-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

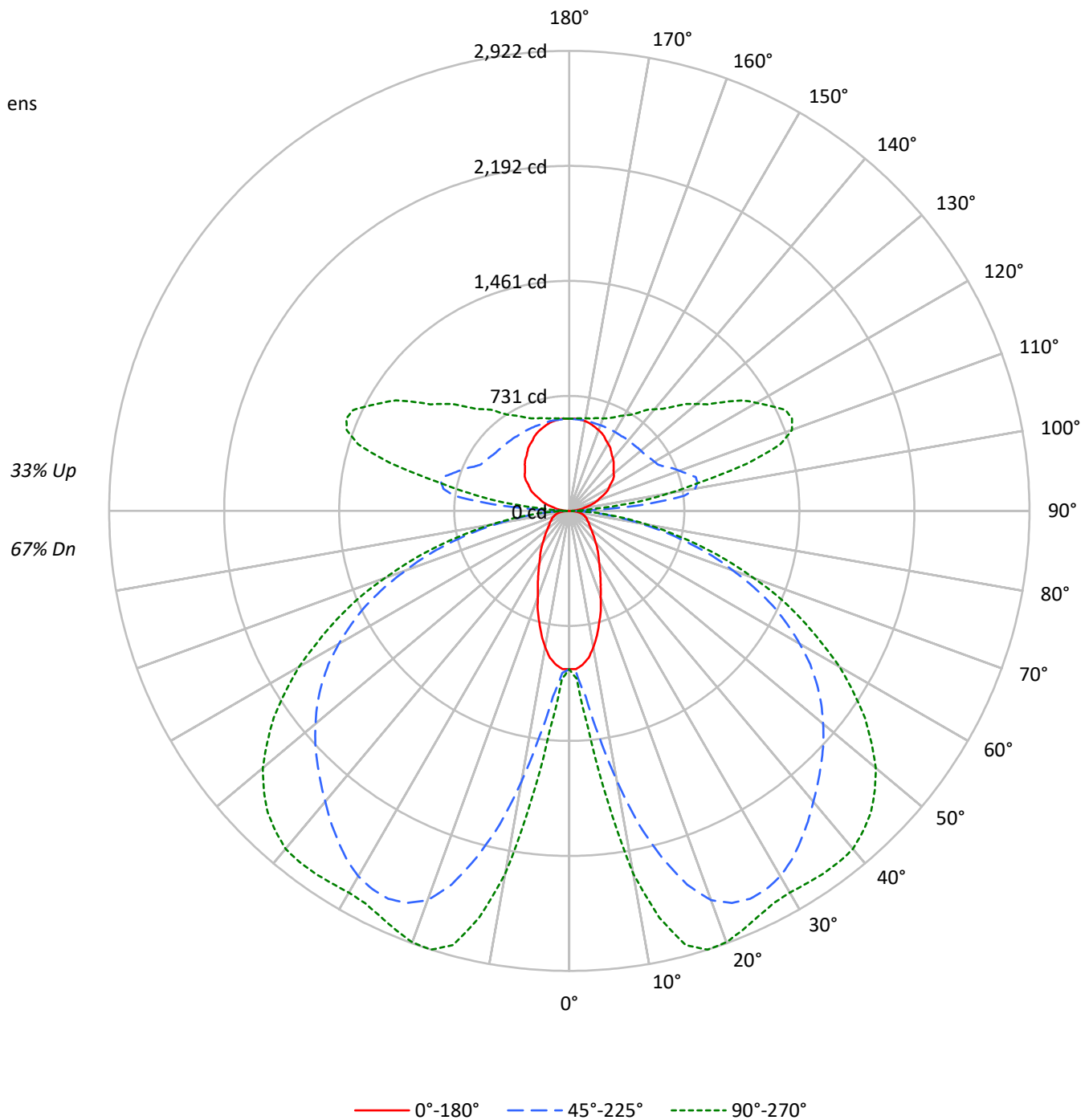
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11581.3 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 112
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4664	4664	4664
5°	4556	5391	6269
10°	4133	7858	10393
15°	3512	10266	12550
20°	2860	11897	12790
25°	2385	12449	12530
30°	2012	12528	12506
35°	1779	12320	12830
40°	1550	12050	13164
45°	1404	11851	13216
50°	1287	11673	12997
55°	1233	11413	12421
60°	1262	10911	11511
65°	1313	10149	10261
70°	1399	8851	8669
75°	1550	7217	6765
80°	1694	5004	4558
85°	1504	2656	2333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13216 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.0	1.1
10°-20°	576.3	5.0
20°-30°	1008.1	8.7
30°-40°	1297.7	11.2
40°-50°	1449.4	12.5
50°-60°	1388.2	12.0
60°-70°	1100.2	9.5
70°-80°	646.9	5.6
80°-90°	182.0	1.6
90°-100°	285.9	2.5
100°-110°	751.7	6.5
110°-120°	779.4	6.7
120°-130°	625.2	5.4
130°-140°	490.6	4.2
140°-150°	376.5	3.3
150°-160°	271.2	2.3
160°-170°	165.9	1.4
170°-180°	56.1	0.5
0°-30°	1714.4	14.8
0°-40°	3012.1	26.0
0°-60°	5849.7	50.5
0°-90°	7778.8	67.2
90°-120°	1817.1	15.7
90°-150°	3309.4	28.6
90°-180°	3802.0	32.8
0°-180°	11581.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	979	1050	1183	1338	1387	90
15°	734	1354	2282	2767	2854	204
25°	469	1535	2718	2838	2841	216
35°	317	1468	2560	2705	2812	198
45°	217	1170	2263	2592	2709	168
55°	155	744	1920	2230	2292	141
65°	123	394	1425	1603	1626	122
75°	90	242	782	860	863	95
85°	32	74	194	213	217	34
90°	4	11	30	15	15	5
95°	38	148	492	254	173	42
105°	135	205	831	1262	1177	144
115°	241	292	666	1328	1516	238
125°	335	375	606	1023	1207	297
135°	399	439	587	826	937	309
145°	463	492	579	705	760	290
155°	523	537	579	636	654	240
165°	564	572	579	602	609	159
175°	587	587	583	590	590	56
180°	587	587	587	587	587	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1005.2	1005.2	1005.2	1005.2	1005.2	1005.2	1005.2	1005.2	1005.2	1005.2	1005.2
2.5°	1005.2	1005.2	1011.7	1015.0	1021.4	1024.6	1031.1	1037.6	1057.0	1060.2	1066.6
5°	979.4	992.3	1034.4	1050.5	1095.8	1157.2	1183.1	1225.1	1312.3	1338.1	1354.3
7.5°	940.6	969.7	1073.1	1099.0	1212.1	1373.8	1441.6	1532.1	1671.1	1739.0	1794.0
10°	879.2	940.6	1124.8	1186.2	1370.5	1616.1	1742.2	1868.3	2078.4	2172.1	2207.7
12.5°	811.3	911.5	1179.8	1263.8	1528.9	1887.7	2039.6	2178.5	2417.8	2543.8	2563.2
15°	733.7	869.5	1231.5	1354.3	1696.9	2113.9	2282.0	2453.3	2676.4	2766.8	2789.5
17.5°	665.8	837.2	1280.0	1409.3	1826.2	2317.6	2488.8	2631.1	2812.1	2873.5	2889.6
20°	581.8	785.5	1312.3	1480.3	1962.0	2466.3	2631.1	2740.9	2863.9	2902.6	2909.0
22.5°	520.4	730.5	1331.7	1506.2	2052.5	2556.7	2695.8	2783.0	2867.0	2880.0	2883.2
25°	468.7	669.1	1328.5	1535.4	2130.1	2611.7	2718.4	2783.0	2831.5	2838.0	2838.0
27.5°	420.2	601.2	1315.5	1541.8	2188.3	2624.6	2708.7	2753.9	2776.6	2789.5	2789.5
30°	378.2	536.5	1283.2	1528.9	2214.2	2611.7	2679.5	2702.2	2724.8	2744.2	2753.9
32.5°	345.9	475.1	1234.7	1503.0	2217.3	2579.4	2627.9	2640.8	2673.1	2718.4	2734.5
35°	316.8	413.7	1179.8	1467.5	2197.9	2527.7	2560.0	2572.9	2637.5	2705.4	2728.1
37.5°	287.6	368.4	1108.7	1406.0	2168.9	2466.3	2488.8	2511.5	2611.7	2692.5	2718.4
40°	258.6	329.7	1024.6	1338.1	2123.6	2391.9	2411.3	2446.8	2579.4	2673.1	2698.9
42.5°	236.0	297.4	934.2	1267.1	2065.5	2307.9	2337.0	2388.6	2540.6	2640.8	2669.9
45°	216.6	265.0	837.2	1170.1	1991.1	2220.6	2262.6	2333.7	2495.3	2592.3	2618.1
47.5°	197.2	242.4	737.0	1069.9	1910.3	2133.3	2188.3	2269.1	2433.9	2527.7	2550.3
50°	181.0	219.8	636.8	963.2	1823.0	2039.6	2104.2	2188.3	2356.4	2443.7	2472.7
52.5°	168.1	200.4	543.0	856.5	1722.8	1942.6	2017.0	2104.2	2262.6	2346.6	2366.0
55°	155.2	184.2	462.2	743.5	1619.4	1839.1	1920.0	2004.1	2159.2	2230.3	2243.2
57.5°	148.7	171.3	394.3	636.8	1509.5	1722.8	1813.4	1890.9	2036.3	2091.3	2104.2
60°	139.0	161.6	342.7	546.3	1389.9	1612.9	1690.4	1768.1	1890.9	1936.2	1945.8
62.5°	129.3	155.2	303.9	459.0	1267.1	1483.6	1561.2	1632.3	1735.7	1768.1	1781.0
65°	122.8	148.7	274.8	394.3	1141.0	1347.9	1425.4	1486.8	1570.9	1603.3	1609.7
67.5°	116.3	142.2	252.1	339.4	1015.0	1212.1	1270.2	1328.5	1393.2	1425.4	1428.7
70°	106.7	135.8	232.7	300.6	885.7	1057.0	1105.4	1166.8	1218.6	1234.7	1244.5
72.5°	100.2	126.1	219.8	271.5	753.1	908.3	953.6	989.1	1034.4	1050.5	1050.5
75°	90.5	113.2	206.9	242.4	617.4	743.5	782.2	817.8	853.3	859.8	850.1
77.5°	80.8	100.2	177.8	203.6	481.6	588.3	620.6	640.0	669.1	675.6	678.8
80°	67.9	87.3	139.0	158.3	349.1	433.1	455.7	472.0	497.7	497.7	504.2
82.5°	51.8	67.9	100.2	113.2	236.0	297.4	316.8	326.4	342.7	342.7	342.7
85°	32.3	42.0	64.7	74.3	142.2	181.0	194.0	197.2	210.1	213.3	213.3
87.5°	16.1	22.6	42.0	45.3	74.3	93.8	93.8	100.2	100.2	96.9	93.8
90°	3.9	7.1	10.2	11.0	17.3	25.7	29.9	26.5	20.0	15.0	15.0
92.5°	15.8	42.5	69.3	76.0	106.9	147.9	168.5	147.6	106.0	74.8	71.8
95°	37.8	86.8	135.8	148.0	262.8	415.9	492.5	439.5	333.5	253.9	245.0
97.5°	65.3	108.5	151.7	162.5	354.0	609.3	737.0	703.5	636.4	586.2	569.0
100°	86.6	125.8	164.9	174.8	387.3	670.5	812.1	814.6	819.5	823.1	802.7
102.5°	104.8	141.3	177.8	187.0	402.4	689.8	833.4	876.1	961.5	1025.5	1008.0
105°	135.4	166.4	197.4	205.1	413.8	692.0	831.0	926.7	1118.2	1261.7	1252.3
107.5°	166.9	195.8	224.6	231.9	415.8	661.1	783.8	917.3	1184.3	1384.6	1386.9
110°	188.1	214.2	240.4	246.9	412.8	633.8	744.4	893.7	1192.1	1416.0	1425.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	209.0	233.9	258.7	264.9	412.8	610.1	708.6	861.3	1166.8	1395.9	1411.0
115°	240.6	263.5	286.4	292.1	416.7	582.7	665.7	812.9	1107.1	1327.8	1348.7
117.5°	271.6	292.4	313.2	318.5	424.4	565.6	636.1	769.0	1034.6	1233.8	1256.9
120°	289.7	309.3	329.0	333.9	430.7	559.8	624.4	745.7	988.3	1170.4	1192.8
122.5°	307.4	327.2	347.0	351.9	439.7	556.8	615.3	724.6	943.2	1107.0	1129.2
125°	334.6	352.6	370.6	375.1	451.9	554.3	605.5	698.3	883.9	1023.2	1043.6
127.5°	356.7	374.8	393.0	397.6	464.1	552.8	597.2	676.9	836.3	955.9	973.0
130°	368.4	388.0	407.7	412.6	473.0	553.7	594.0	665.0	806.9	913.3	929.2
132.5°	380.7	400.2	419.9	424.8	480.3	554.3	591.3	654.8	781.9	877.1	891.3
135°	398.8	416.7	434.4	438.9	488.1	553.7	586.6	639.8	746.1	825.9	838.2
137.5°	417.3	435.0	452.7	457.1	499.9	557.1	585.8	630.8	720.7	788.2	798.2
140°	432.6	448.9	465.2	469.3	507.2	557.7	583.0	621.9	699.5	757.8	767.2
142.5°	444.5	459.5	474.5	478.3	513.2	559.7	583.0	617.1	685.4	736.6	744.7
145°	462.6	475.7	488.9	492.1	521.1	559.8	579.1	607.0	662.9	704.7	710.8
147.5°	480.7	493.4	506.2	509.4	532.6	563.6	579.1	601.1	644.9	677.9	682.9
150°	492.5	504.0	515.6	518.5	538.7	565.6	579.1	597.6	634.8	662.6	666.7
152.5°	504.7	513.5	522.2	524.4	542.6	567.0	579.1	595.0	626.6	650.4	653.5
155°	522.8	529.3	535.8	537.4	551.3	569.8	579.1	591.7	616.8	635.7	637.8
157.5°	536.1	542.4	548.7	550.4	559.9	572.7	579.1	588.9	608.4	623.1	624.6
160°	545.2	550.2	555.0	556.3	563.9	574.1	579.1	587.5	604.2	616.8	617.7
162.5°	554.3	558.0	561.6	562.6	568.1	575.5	579.1	586.2	600.4	611.0	611.8
165°	564.1	567.5	570.7	571.6	574.1	577.4	579.1	584.2	594.3	601.9	602.8
167.5°	573.2	574.7	576.3	576.7	578.8	581.6	583.0	586.4	593.1	598.0	598.4
170°	579.1	580.6	582.3	582.6	582.7	582.9	583.0	586.4	593.1	598.0	598.0
172.5°	582.3	582.6	582.9	583.0	583.0	583.0	583.0	585.7	591.0	594.9	594.6
175°	586.6	586.6	586.6	586.6	585.4	583.8	583.0	584.7	588.0	590.5	590.5
177.5°	586.6	586.6	586.6	586.6	585.6	584.4	583.8	585.1	587.7	589.7	589.3
180°	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1005.2	1005.2
2.5°	1073.1	1066.6
5°	1380.2	1386.7
7.5°	1858.5	1855.4
10°	2311.1	2340.2
12.5°	2640.8	2647.3
15°	2841.2	2854.1
17.5°	2918.8	2922.0
20°	2922.0	2915.5
22.5°	2886.5	2880.0
25°	2844.5	2841.2
27.5°	2805.6	2808.8
30°	2789.5	2799.2
32.5°	2789.5	2805.6
35°	2796.0	2812.1
37.5°	2792.7	2812.1
40°	2779.8	2802.4
42.5°	2744.2	2760.4
45°	2689.3	2708.7
47.5°	2618.1	2631.1
50°	2527.7	2540.6
52.5°	2414.5	2417.8
55°	2278.7	2291.7
57.5°	2133.3	2136.5
60°	1971.7	1981.4
62.5°	1800.4	1800.4
65°	1619.4	1625.9
67.5°	1431.9	1448.1
70°	1241.2	1244.5
72.5°	1053.7	1053.7
75°	859.8	863.0
77.5°	675.6	675.6
80°	501.0	504.2
82.5°	345.9	352.3
85°	216.6	216.6
87.5°	100.2	90.5
90°	15.0	15.0
92.5°	59.9	48.0
95°	208.9	172.9
97.5°	500.4	431.9
100°	721.0	639.3
102.5°	938.0	868.0
105°	1214.7	1177.0
107.5°	1395.9	1405.0
110°	1465.0	1504.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1471.2	1531.3
115°	1432.1	1515.6
117.5°	1349.5	1442.0
120°	1282.8	1372.7
122.5°	1217.9	1306.6
125°	1125.3	1207.0
127.5°	1042.0	1111.0
130°	992.9	1056.6
132.5°	948.4	1005.4
135°	887.4	936.6
137.5°	838.5	878.7
140°	804.8	842.4
142.5°	777.0	809.4
145°	735.4	759.8
147.5°	703.3	723.6
150°	683.1	699.5
152.5°	665.9	678.3
155°	646.1	654.3
157.5°	630.4	636.1
160°	621.0	624.4
162.5°	614.9	618.1
165°	606.0	609.4
167.5°	599.7	601.2
170°	598.0	598.0
172.5°	593.3	592.1
175°	590.5	590.5
177.5°	588.0	586.6
180°	586.6	586.6



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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	7.78	8.88	8.57	9.69	10.69	20.96	22.06	21.75	22.87	23.87
	3H	8.50	9.49	9.30	10.32	11.35	22.82	23.81	23.62	24.63	25.66
	4H	8.81	9.75	9.63	10.58	11.62	23.47	24.41	24.29	25.24	26.28
	6H	9.08	9.94	9.91	10.78	11.84	23.92	24.78	24.75	25.62	26.67
	8H	9.15	9.98	9.99	10.84	11.89	24.04	24.87	24.88	25.73	26.78
	12H	9.18	9.96	10.02	10.82	11.90	24.12	24.91	24.96	25.76	26.84
4H	2H	15.03	15.96	15.84	16.79	17.83	21.26	22.20	22.08	23.03	24.07
	3H	16.61	17.40	17.45	18.26	19.32	23.33	24.12	24.16	24.98	26.04
	4H	16.72	17.44	17.57	18.30	19.38	24.11	24.82	24.95	25.69	26.77
	6H	16.74	17.37	17.61	18.25	19.34	24.66	25.28	25.52	26.17	27.25
	8H	16.73	17.31	17.59	18.19	19.29	24.83	25.41	25.69	26.29	27.39
	12H	16.70	17.22	17.58	18.12	19.23	24.93	25.46	25.82	26.36	27.47
8H	4H	18.18	18.77	19.05	19.65	20.75	24.19	24.77	25.05	25.65	26.75
	6H	18.44	18.92	19.33	19.85	20.94	24.83	25.31	25.72	26.24	27.34
	8H	18.46	18.89	19.36	19.81	20.92	25.05	25.48	25.96	26.40	27.51
	12H	18.44	18.82	19.35	19.73	20.90	25.21	25.59	26.12	26.50	27.66
12H	4H	18.34	18.87	19.23	19.77	20.87	24.15	24.68	25.04	25.58	26.69
	6H	18.70	19.13	19.60	20.05	21.16	24.81	25.24	25.72	26.16	27.28
	8H	18.78	19.16	19.69	20.07	21.24	25.06	25.43	25.96	26.34	27.51