

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: P936849

Luminaire Tested: SQ4-FB-050U-100D-930-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936849
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-930-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

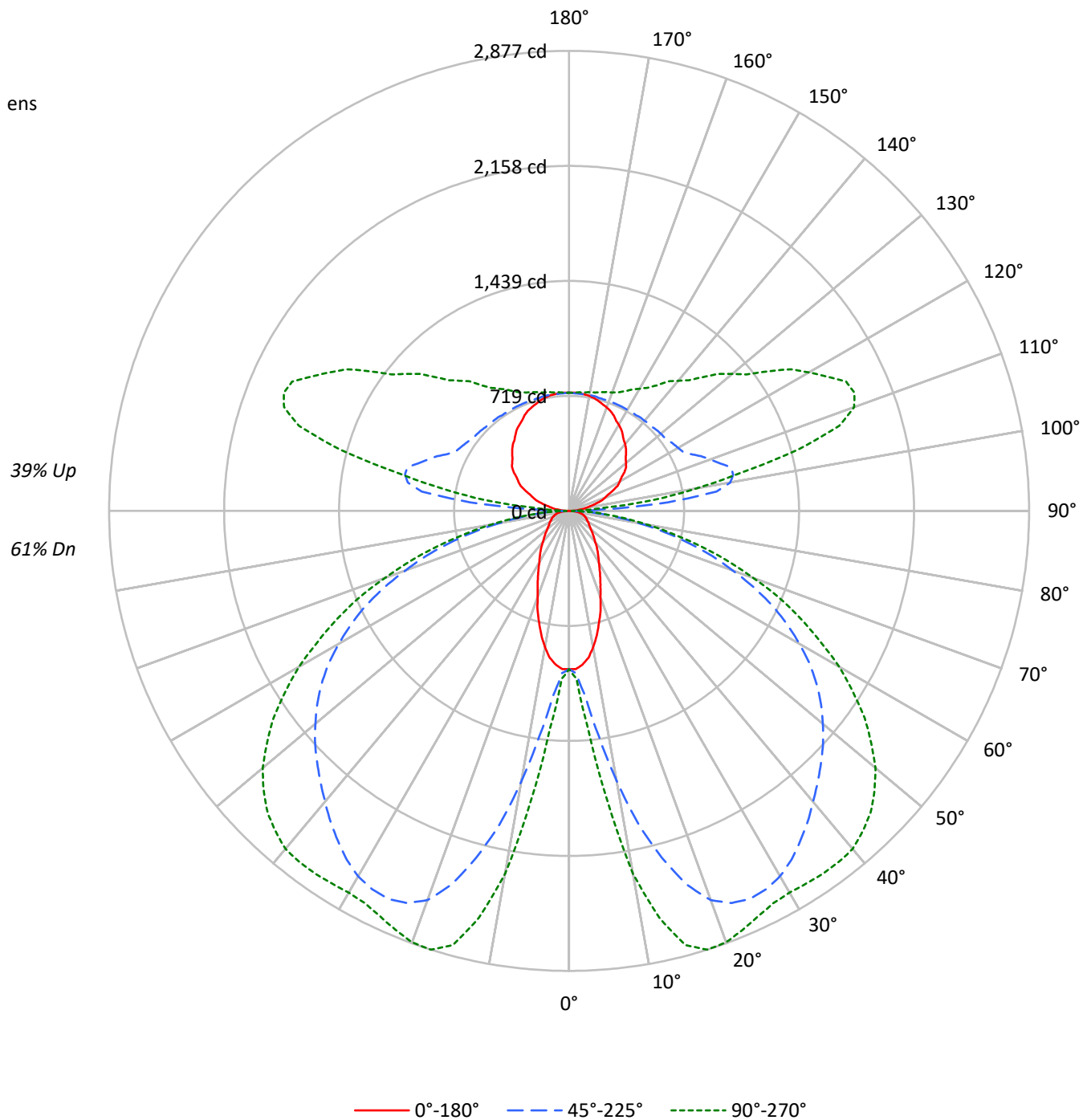
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12456.1 lumens
Efficiency: N/A
Efficacy: 91.9 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 (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				
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3062	3062	3062
5°	2992	3540	4115
10°	2715	5161	6823
15°	2308	6744	8238
20°	1880	7817	8396
25°	1569	8182	8225
30°	1324	8236	8210
35°	1171	8102	8422
40°	1021	7926	8641
45°	925	7798	8676
50°	850	7684	8532
55°	814	7515	8154
60°	834	7188	7556
65°	869	6690	6736
70°	928	5838	5691
75°	1033	4764	4441
80°	1136	3309	2992
85°	1030	1759	1532

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8676 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.0	1.0
10°-20°	567.5	4.6
20°-30°	992.6	8.0
30°-40°	1277.8	10.3
40°-50°	1427.2	11.5
50°-60°	1367.0	11.0
60°-70°	1083.3	8.7
70°-80°	637.0	5.1
80°-90°	179.8	1.4
90°-100°	360.6	2.9
100°-110°	948.1	7.6
110°-120°	983.1	7.9
120°-130°	788.5	6.3
130°-140°	618.7	5.0
140°-150°	474.9	3.8
150°-160°	342.0	2.7
160°-170°	209.3	1.7
170°-180°	70.7	0.6
0°-30°	1688.1	13.6
0°-40°	2965.9	23.8
0°-60°	5760.1	46.2
0°-90°	7660.3	61.5
90°-120°	2291.7	18.4
90°-150°	4173.9	33.5
90°-180°	4796.0	38.5
0°-180°	12456.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	964	1034	1165	1318	1365	89
15°	722	1334	2247	2724	2810	201
25°	462	1512	2677	2794	2798	213
35°	312	1445	2521	2664	2769	195
45°	213	1152	2228	2553	2667	165
55°	153	732	1891	2196	2257	139
65°	121	388	1404	1579	1601	120
75°	89	239	770	847	850	93
85°	32	73	191	210	213	34
90°	5	14	38	19	19	6
95°	48	187	621	320	218	53
105°	171	259	1048	1591	1485	181
115°	303	368	840	1675	1912	300
125°	422	473	764	1290	1522	375
135°	503	554	740	1042	1181	389
145°	583	621	730	889	958	365
155°	659	678	730	802	825	303
165°	712	721	730	759	769	201
175°	740	740	735	745	745	70
180°	740	740	740	740	740	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9
2.5°	989.9	989.9	996.2	999.4	1005.8	1009.0	1015.3	1021.7	1040.8	1044.0	1050.3
5°	964.4	977.1	1018.5	1034.4	1079.0	1139.5	1164.9	1206.3	1292.2	1317.6	1333.5
7.5°	926.2	954.8	1056.7	1082.1	1193.5	1352.7	1419.5	1508.6	1645.5	1712.3	1766.4
10°	865.7	926.2	1107.6	1168.0	1349.5	1591.4	1715.5	1839.7	2046.5	2138.8	2173.8
12.5°	798.9	897.5	1161.7	1244.5	1505.5	1858.7	2008.3	2145.2	2380.7	2504.9	2523.9
15°	722.5	856.2	1212.6	1333.5	1671.0	2081.5	2247.0	2415.7	2635.4	2724.4	2746.7
17.5°	655.6	824.4	1260.4	1387.7	1798.2	2282.0	2450.8	2590.8	2769.0	2829.5	2845.4
20°	572.9	773.4	1292.2	1457.7	1931.9	2428.4	2590.8	2699.0	2819.9	2858.1	2864.5
22.5°	512.4	719.3	1311.3	1483.1	2021.1	2517.6	2654.4	2740.4	2823.1	2835.9	2839.0
25°	461.5	658.9	1308.1	1511.8	2097.4	2571.7	2676.7	2740.4	2788.1	2794.4	2794.4
27.5°	413.8	592.0	1295.4	1518.2	2154.8	2584.4	2667.2	2711.7	2734.0	2746.7	2746.7
30°	372.4	528.4	1263.5	1505.5	2180.2	2571.7	2638.5	2660.8	2683.1	2702.2	2711.7
32.5°	340.6	467.8	1215.8	1480.0	2183.4	2539.9	2587.6	2600.4	2632.2	2676.7	2692.6
35°	311.9	407.4	1161.7	1445.0	2164.2	2488.9	2520.8	2533.5	2597.1	2664.0	2686.3
37.5°	283.3	362.9	1091.7	1384.5	2135.7	2428.4	2450.8	2473.0	2571.7	2651.3	2676.7
40°	254.6	324.7	1009.0	1317.6	2091.1	2355.3	2374.3	2409.3	2539.9	2632.2	2657.6
42.5°	232.3	292.9	919.8	1247.6	2033.8	2272.5	2301.2	2352.1	2501.7	2600.4	2628.9
45°	213.3	261.0	824.4	1152.1	1960.6	2186.6	2227.9	2297.9	2457.1	2552.6	2578.0
47.5°	194.2	238.7	725.7	1053.5	1881.0	2100.6	2154.8	2234.3	2396.6	2488.9	2511.2
50°	178.3	216.4	627.0	948.5	1795.1	2008.3	2072.0	2154.8	2320.3	2406.2	2434.9
52.5°	165.5	197.3	534.7	843.5	1696.4	1912.8	1986.1	2072.0	2227.9	2310.7	2329.8
55°	152.8	181.4	455.1	732.0	1594.6	1811.0	1890.6	1973.3	2126.1	2196.1	2208.8
57.5°	146.4	168.7	388.3	627.0	1486.4	1696.4	1785.6	1861.9	2005.2	2059.2	2072.0
60°	136.8	159.2	337.3	537.8	1368.6	1588.2	1664.6	1741.0	1861.9	1906.5	1916.0
62.5°	127.3	152.8	299.2	451.9	1247.6	1460.9	1537.3	1607.3	1709.2	1741.0	1753.7
65°	120.9	146.4	270.5	388.3	1123.6	1327.2	1403.6	1464.1	1546.8	1578.6	1585.0
67.5°	114.6	140.0	248.3	334.2	999.4	1193.5	1250.8	1308.1	1371.8	1403.6	1406.8
70°	105.0	133.7	229.2	296.0	872.1	1040.8	1088.5	1149.0	1199.9	1215.8	1225.4
72.5°	98.7	124.1	216.4	267.3	741.6	894.4	938.9	974.0	1018.5	1034.4	1034.4
75°	89.1	111.4	203.7	238.7	607.9	732.0	770.2	805.2	840.3	846.6	837.0
77.5°	79.6	98.7	175.1	200.5	474.3	579.3	611.1	630.2	658.9	665.2	668.4
80°	66.8	85.9	136.8	155.9	343.8	426.5	448.8	464.7	490.2	490.2	496.5
82.5°	50.9	66.8	98.7	111.4	232.3	292.9	311.9	321.4	337.3	337.3	337.3
85°	31.8	41.4	63.7	73.2	140.0	178.3	191.0	194.2	206.9	210.1	210.1
87.5°	15.9	22.2	41.4	44.6	73.2	92.3	92.3	98.7	98.7	95.5	92.3
90°	5.0	8.9	12.9	13.9	21.8	32.4	37.7	33.6	25.1	18.9	18.9
92.5°	19.8	53.6	87.4	95.8	134.7	186.5	212.5	186.2	133.7	94.4	90.6
95°	47.7	109.4	171.3	186.7	331.5	524.6	621.1	554.2	420.5	320.2	308.8
97.5°	82.4	136.9	191.4	205.1	446.5	768.5	929.5	887.2	802.7	739.3	717.7
100°	109.2	158.7	208.1	220.4	488.4	845.6	1024.3	1027.4	1033.5	1038.2	1012.4
102.5°	132.1	178.2	224.3	235.8	507.6	870.0	1051.1	1104.9	1212.6	1293.4	1271.3
105°	170.8	209.8	248.8	258.6	521.8	872.7	1048.2	1168.8	1410.2	1591.3	1579.4
107.5°	210.5	246.9	283.4	292.5	524.5	833.9	988.6	1157.0	1493.7	1746.3	1749.2
110°	237.4	270.2	303.1	311.3	520.5	799.5	938.9	1127.2	1503.6	1786.0	1798.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	263.6	294.9	326.3	334.1	520.7	769.4	893.7	1086.4	1471.7	1760.7	1779.6
115°	303.4	332.3	361.2	368.4	525.5	734.9	839.6	1025.2	1396.3	1674.7	1701.1
117.5°	342.6	368.8	395.1	401.7	535.2	713.3	802.4	969.9	1304.8	1556.1	1585.2
120°	365.4	390.2	414.8	421.0	543.1	706.1	787.5	940.6	1246.6	1476.2	1504.5
122.5°	387.8	412.7	437.6	443.9	554.6	702.2	776.0	913.8	1189.5	1396.2	1424.1
125°	422.1	444.8	467.5	473.2	570.0	699.1	763.7	880.7	1114.8	1290.4	1316.2
127.5°	449.8	472.8	495.8	501.5	585.4	697.2	753.2	853.7	1054.7	1205.5	1227.3
130°	464.8	489.5	514.2	520.3	596.6	698.4	749.3	838.7	1017.7	1151.9	1172.0
132.5°	480.1	504.8	529.6	535.8	605.8	699.1	745.7	825.9	986.1	1106.2	1124.2
135°	503.0	525.5	548.0	553.6	615.7	698.4	739.8	806.9	941.1	1041.7	1057.2
137.5°	526.3	548.6	570.9	576.5	630.6	702.8	738.8	795.5	909.0	994.0	1006.7
140°	545.6	566.2	586.7	591.8	639.7	703.4	735.3	784.3	882.3	955.8	967.7
142.5°	560.6	579.5	598.6	603.3	647.3	706.0	735.3	778.3	864.4	929.0	939.2
145°	583.4	599.9	616.5	620.6	657.3	706.0	730.4	765.6	836.0	888.8	896.5
147.5°	606.3	622.3	638.5	642.5	671.8	710.9	730.4	758.1	813.5	855.0	861.5
150°	621.1	635.7	650.3	653.9	679.4	713.4	730.4	753.8	800.5	835.6	840.8
152.5°	636.5	647.5	658.6	661.4	684.4	715.1	730.4	750.4	790.3	820.3	824.2
155°	659.3	667.5	675.7	677.7	695.3	718.7	730.4	746.3	778.0	801.9	804.4
157.5°	676.3	684.2	692.1	694.1	706.2	722.4	730.4	742.8	767.4	786.0	787.8
160°	687.7	693.9	700.1	701.6	711.2	724.0	730.4	741.0	762.1	778.0	779.1
162.5°	699.1	703.7	708.4	709.5	716.5	725.8	730.4	739.3	757.1	770.6	771.5
165°	711.5	715.7	719.9	720.9	724.1	728.3	730.4	736.8	749.6	759.2	760.2
167.5°	722.9	724.9	726.9	727.4	730.0	733.5	735.3	739.5	747.9	754.2	754.7
170°	730.4	732.3	734.3	734.8	735.0	735.2	735.3	739.5	747.9	754.2	754.2
172.5°	734.3	734.7	735.2	735.3	735.3	735.3	735.3	738.6	745.3	750.2	749.8
175°	739.8	739.8	739.8	739.8	738.3	736.3	735.3	737.4	741.7	744.8	744.8
177.5°	739.8	739.8	739.8	739.8	738.7	737.2	736.4	738.0	741.3	743.8	743.3
180°	739.8	739.8	739.8	739.8	739.8	739.8	739.8	739.8	739.8	739.8	739.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	989.9	989.9
2.5°	1056.7	1050.3
5°	1359.1	1365.4
7.5°	1830.1	1826.9
10°	2275.7	2304.3
12.5°	2600.4	2606.7
15°	2797.7	2810.4
17.5°	2874.0	2877.2
20°	2877.2	2870.9
22.5°	2842.2	2835.9
25°	2800.9	2797.7
27.5°	2762.6	2765.9
30°	2746.7	2756.3
32.5°	2746.7	2762.6
35°	2753.1	2769.0
37.5°	2749.9	2769.0
40°	2737.2	2759.4
42.5°	2702.2	2718.1
45°	2648.1	2667.2
47.5°	2578.0	2590.8
50°	2488.9	2501.7
52.5°	2377.5	2380.7
55°	2243.8	2256.6
57.5°	2100.6	2103.8
60°	1941.5	1951.0
62.5°	1772.8	1772.8
65°	1594.6	1600.9
67.5°	1410.0	1425.9
70°	1222.2	1225.4
72.5°	1037.6	1037.6
75°	846.6	849.8
77.5°	665.2	665.2
80°	493.4	496.5
82.5°	340.6	346.9
85°	213.3	213.3
87.5°	98.7	89.1
90°	18.9	18.9
92.5°	75.6	60.5
95°	263.4	217.9
97.5°	631.2	544.7
100°	909.4	806.4
102.5°	1183.1	1094.8
105°	1532.0	1484.6
107.5°	1760.6	1772.1
110°	1847.7	1897.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1855.6	1931.5
115°	1806.3	1911.6
117.5°	1702.0	1818.7
120°	1618.0	1731.3
122.5°	1536.1	1647.9
125°	1419.2	1522.3
127.5°	1314.2	1401.2
130°	1252.4	1332.7
132.5°	1196.1	1268.1
135°	1119.2	1181.2
137.5°	1057.5	1108.2
140°	1015.1	1062.5
142.5°	980.1	1020.9
145°	927.4	958.3
147.5°	887.0	912.6
150°	861.5	882.3
152.5°	839.9	855.5
155°	814.9	825.2
157.5°	795.1	802.4
160°	783.3	787.5
162.5°	775.5	779.6
165°	764.5	768.6
167.5°	756.4	758.2
170°	754.2	754.2
172.5°	748.3	746.8
175°	744.8	744.8
177.5°	741.6	739.8
180°	739.8	739.8



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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	5.88	6.91	6.72	7.78	8.87	19.07	20.10	19.92	20.97	22.06
	3H	6.60	7.52	7.45	8.40	9.52	20.93	21.85	21.78	22.73	23.85
	4H	6.90	7.78	7.78	8.67	9.79	21.59	22.46	22.46	23.35	24.48
	6H	7.16	7.97	8.05	8.86	10.01	22.03	22.84	22.91	23.73	24.88
	8H	7.24	8.01	8.13	8.92	10.06	22.16	22.93	23.05	23.84	24.98
	12H	7.26	7.99	8.16	8.90	10.07	22.23	22.97	23.13	23.88	25.05
4H	2H	13.12	14.00	14.00	14.89	16.02	19.37	20.24	20.24	21.13	22.26
	3H	14.71	15.44	15.59	16.36	17.50	21.43	22.16	22.32	23.08	24.23
	4H	14.81	15.48	15.71	16.39	17.56	22.21	22.88	23.11	23.79	24.97
	6H	14.83	15.41	15.74	16.35	17.52	22.76	23.34	23.68	24.28	25.45
	8H	14.81	15.35	15.73	16.29	17.47	22.93	23.47	23.85	24.41	25.60
	12H	14.77	15.26	15.71	16.22	17.41	23.04	23.53	23.98	24.48	25.67
8H	4H	16.27	16.81	17.19	17.75	18.93	22.28	22.83	23.20	23.76	24.95
	6H	16.52	16.97	17.46	17.95	19.13	22.93	23.38	23.87	24.35	25.54
	8H	16.54	16.94	17.49	17.90	19.11	23.15	23.55	24.10	24.51	25.72
	12H	16.52	16.87	17.48	17.83	19.08	23.31	23.66	24.27	24.62	25.87
12H	4H	16.42	16.91	17.36	17.86	19.06	22.24	22.74	23.18	23.69	24.88
	6H	16.78	17.18	17.74	18.15	19.35	22.91	23.31	23.86	24.28	25.48
	8H	16.86	17.21	17.82	18.17	19.42	23.15	23.50	24.11	24.46	25.71