

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: P936429

Luminaire Tested: SQ4-FB-025U-100D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

**Test Information**

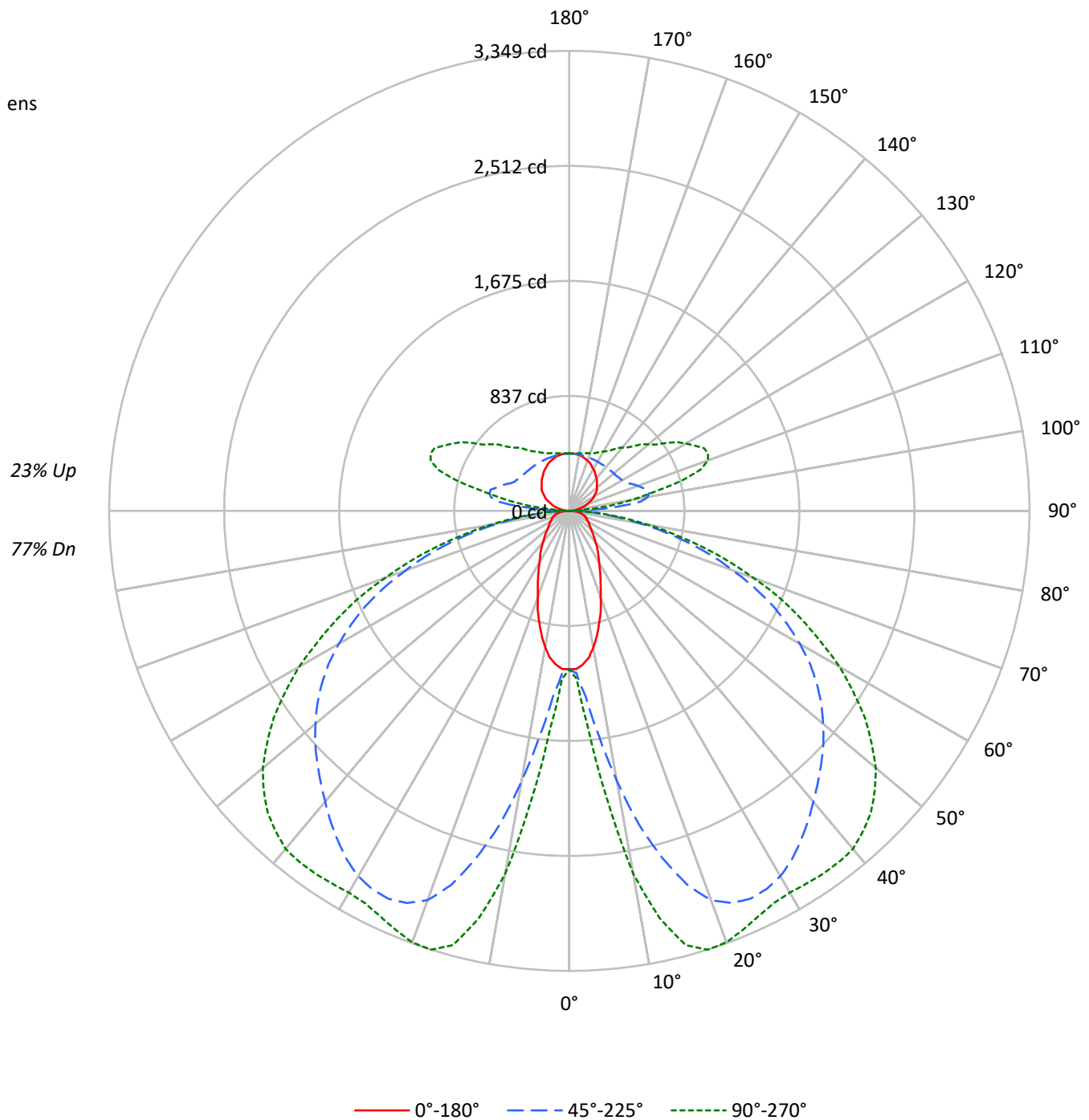
Test Method: LM-79-2019  
Report Number: P936429  
REPORT IS A COMBINATION OF REPORTS P933431 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-100D-92765-1D-UNV-STD-W-12-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11627.7 lumens  
Efficiency: N/A  
Efficacy: 99.9 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): 116.4  
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





TEST NUMBER: P936429

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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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	81	81	81	77			77
1	103	98	94	90	98	94	90	86	85	82	79	77	75	73	70	68	66	63			63
2	93	85	78	72	88	81	75	69	73	68	64	67	63	59	61	57	55	51			51
3	84	74	65	59	80	70	63	57	64	58	53	58	53	49	53	49	45	42			42
4	77	65	56	49	73	62	54	47	56	50	44	51	46	41	47	42	38	35			35
5	70	57	48	42	66	55	46	40	50	43	38	46	40	35	41	37	33	30			30
6	64	51	42	36	61	49	41	35	45	38	32	41	35	30	37	32	28	26			26
7	59	46	37	31	56	44	36	30	40	33	28	37	31	27	34	29	25	22			22
8	55	42	33	27	52	40	32	26	37	30	25	34	28	23	31	26	22	20			20
9	51	38	30	24	49	36	29	23	33	27	22	31	25	21	28	23	19	17			17
10	48	35	27	21	45	33	26	21	31	24	20	28	23	19	26	21	17	16			16

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

	0°	45°	90°
0°	3564	3564	3564
5°	3483	4120	4790
10°	3160	6007	7941
15°	2687	7850	9590
20°	2188	9099	9773
25°	1826	9524	9574
30°	1541	9587	9556
35°	1363	9430	9803
40°	1188	9226	10059
45°	1077	9077	10098
50°	989	8944	9931
55°	948	8748	9491
60°	971	8367	8796
65°	1012	7787	7841
70°	1081	6796	6624
75°	1203	5546	5169
80°	1323	3851	3483
85°	1199	2047	1783

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10098 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.0	1.3
10°-20°	660.6	5.7
20°-30°	1155.4	9.9
30°-40°	1487.4	12.8
40°-50°	1661.3	14.3
50°-60°	1591.2	13.7
60°-70°	1261.0	10.8
70°-80°	741.5	6.4
80°-90°	207.6	1.8
90°-100°	204.0	1.8
100°-110°	536.3	4.6
110°-120°	556.1	4.8
120°-130°	446.0	3.8
130°-140°	350.0	3.0
140°-150°	268.6	2.3
150°-160°	193.5	1.7
160°-170°	118.4	1.0
170°-180°	40.0	0.3
0°-30°	1965.0	16.9
0°-40°	3452.4	29.7
0°-60°	6704.9	57.7
0°-90°	8915.0	76.7
90°-120°	1296.3	11.1
90°-150°	2361.0	20.3
90°-180°	2713.0	23.3
0°-180°	11627.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1123	1204	1356	1534	1589	104
15°	841	1552	2616	3171	3271	234
25°	537	1760	3116	3253	3256	247
35°	363	1682	2934	3101	3223	227
45°	248	1341	2593	2971	3105	192
55°	178	852	2201	2556	2627	162
65°	141	452	1634	1838	1864	140
75°	104	278	897	986	989	109
85°	37	85	222	244	248	39
90°	3	8	21	11	11	5
95°	27	106	351	181	123	30
105°	97	146	593	900	840	102
115°	172	208	475	947	1081	169
125°	239	268	432	730	861	212
135°	284	313	418	589	668	220
145°	330	351	413	503	542	207
155°	373	383	413	454	467	171
165°	402	408	413	429	435	114
175°	418	418	416	421	421	40
180°	418	418	418	418	418	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2
2.5°	1152.2	1152.2	1159.6	1163.3	1170.7	1174.5	1181.8	1189.2	1211.5	1215.2	1222.6
5°	1122.6	1137.4	1185.6	1204.1	1256.0	1326.3	1356.0	1404.1	1504.1	1533.8	1552.3
7.5°	1078.1	1111.5	1230.0	1259.6	1389.3	1574.5	1652.4	1756.0	1915.4	1993.2	2056.2
10°	1007.7	1078.1	1289.2	1359.6	1570.9	1852.4	1996.9	2141.4	2382.2	2489.6	2530.3
12.5°	929.9	1044.7	1352.2	1448.6	1752.4	2163.6	2337.7	2497.1	2771.2	2915.7	2937.9
15°	841.0	996.6	1411.5	1552.3	1945.0	2422.9	2615.6	2812.0	3067.6	3171.3	3197.3
17.5°	763.2	959.6	1467.1	1615.3	2093.2	2656.3	2852.7	3015.7	3223.1	3293.5	3312.1
20°	666.8	900.3	1504.1	1696.8	2248.8	2826.7	3015.7	3141.6	3282.4	3326.9	3334.3
22.5°	596.4	837.3	1526.4	1726.4	2352.6	2930.5	3089.8	3189.9	3286.1	3301.0	3304.7
25°	537.2	766.9	1522.6	1759.8	2441.5	2993.5	3115.7	3189.9	3245.4	3252.8	3252.8
27.5°	481.7	689.1	1507.9	1767.2	2508.2	3008.3	3104.6	3156.5	3182.4	3197.3	3197.3
30°	433.4	615.0	1470.8	1752.4	2537.8	2993.5	3071.3	3097.2	3123.1	3145.4	3156.5
32.5°	396.4	544.6	1415.2	1722.8	2541.5	2956.5	3012.0	3026.9	3063.9	3115.7	3134.3
35°	363.0	474.2	1352.2	1682.0	2519.2	2897.1	2934.2	2949.0	3023.1	3100.9	3126.9
37.5°	329.8	422.4	1270.7	1611.6	2485.9	2826.7	2852.7	2878.6	2993.5	3086.1	3115.7
40°	296.4	377.9	1174.5	1533.8	2434.1	2741.6	2763.7	2804.5	2956.5	3063.9	3093.5
42.5°	270.4	340.9	1070.7	1452.3	2367.3	2645.2	2678.6	2737.8	2912.0	3026.9	3060.1
45°	248.3	303.8	959.6	1341.1	2282.2	2545.2	2593.3	2674.8	2860.1	2971.2	3000.9
47.5°	226.0	277.9	844.7	1226.3	2189.5	2445.2	2508.2	2600.7	2789.7	2897.1	2923.1
50°	207.5	251.9	729.8	1104.1	2089.5	2337.7	2411.8	2508.2	2700.8	2800.8	2834.2
52.5°	192.6	229.7	622.4	981.8	1974.7	2226.6	2311.8	2411.8	2593.3	2689.7	2712.0
55°	177.9	211.2	529.8	852.1	1856.1	2108.0	2200.7	2296.9	2474.8	2556.3	2571.1
57.5°	170.4	196.4	452.0	729.8	1730.1	1974.7	2078.4	2167.3	2334.1	2397.0	2411.8
60°	159.3	185.3	392.7	626.1	1593.0	1848.7	1937.6	2026.5	2167.3	2219.2	2230.3
62.5°	148.2	177.9	348.3	526.1	1452.3	1700.5	1789.4	1870.9	1989.5	2026.5	2041.3
65°	140.8	170.4	314.9	452.0	1307.8	1544.9	1633.8	1704.2	1800.5	1837.5	1845.0
67.5°	133.4	163.0	289.0	389.0	1163.3	1389.3	1456.0	1522.6	1596.8	1633.8	1637.5
70°	122.3	155.6	266.8	344.5	1015.1	1211.5	1267.1	1337.5	1396.7	1415.2	1426.4
72.5°	114.9	144.5	251.9	311.2	863.2	1041.1	1093.0	1133.7	1185.6	1204.1	1204.1
75°	103.8	129.6	237.1	277.9	707.6	852.1	896.6	937.3	978.1	985.5	974.3
77.5°	92.6	114.9	203.8	233.4	552.0	674.3	711.3	733.6	766.9	774.3	778.0
80°	77.8	100.0	159.3	181.5	400.1	496.4	522.4	540.9	570.5	570.5	577.9
82.5°	59.3	77.8	114.9	129.6	270.4	340.9	363.0	374.2	392.7	392.7	392.7
85°	37.0	48.1	74.1	85.2	163.0	207.5	222.3	226.0	240.8	244.5	244.5
87.5°	18.5	25.9	48.1	51.9	85.2	107.4	107.4	114.9	114.9	111.1	107.4
90°	2.8	5.0	7.3	7.9	12.3	18.3	21.3	19.0	14.2	10.7	10.7
92.5°	11.2	30.3	49.4	54.2	76.2	105.5	120.2	105.3	75.6	53.4	51.2
95°	26.9	61.9	96.8	105.6	187.5	296.8	351.4	313.5	237.9	181.1	174.7
97.5°	46.6	77.5	108.3	116.0	252.6	434.7	525.8	501.8	454.1	418.2	405.9
100°	61.8	89.7	117.7	124.7	276.3	478.4	579.4	581.2	584.7	587.3	572.7
102.5°	74.7	100.8	126.8	133.4	287.1	492.1	594.6	625.0	685.9	731.6	719.1
105°	96.6	118.7	140.8	146.3	295.2	493.6	592.9	661.1	797.7	900.1	893.4
107.5°	119.1	139.6	160.3	165.4	296.7	471.7	559.1	654.4	844.9	987.8	989.4
110°	134.2	152.8	171.4	176.1	294.4	452.2	531.1	637.6	850.5	1010.2	1017.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	149.2	166.8	184.6	189.0	294.5	435.2	505.6	614.6	832.4	995.9	1006.7
115°	171.6	188.0	204.3	208.4	297.2	415.7	474.9	579.9	789.8	947.3	962.2
117.5°	193.8	208.6	223.5	227.2	302.8	403.5	453.9	548.7	738.1	880.2	896.8
120°	206.7	220.7	234.7	238.2	307.2	399.3	445.4	531.9	705.1	835.0	851.0
122.5°	219.4	233.5	247.5	251.1	313.7	397.2	438.9	516.9	672.8	789.7	805.5
125°	238.7	251.6	264.5	267.7	322.5	395.5	431.9	498.1	630.6	729.9	744.5
127.5°	254.4	267.4	280.4	283.7	331.2	394.4	426.0	482.9	596.6	681.9	694.2
130°	262.8	276.9	290.9	294.3	337.5	395.0	423.8	474.5	575.7	651.6	663.0
132.5°	271.6	285.6	299.6	303.0	342.7	395.5	421.8	467.2	557.8	625.8	636.0
135°	284.5	297.2	309.9	313.1	348.3	395.1	418.5	456.4	532.3	589.2	598.0
137.5°	297.7	310.3	322.8	326.0	356.7	397.5	417.9	450.0	514.1	562.2	569.4
140°	308.6	320.2	331.9	334.8	361.8	397.9	415.9	443.6	499.0	540.6	547.4
142.5°	317.1	327.8	338.6	341.3	366.1	399.3	415.9	440.2	488.9	525.5	531.3
145°	330.0	339.4	348.7	351.1	371.7	399.3	413.1	433.0	472.9	502.7	507.1
147.5°	342.9	352.0	361.2	363.4	380.0	402.1	413.1	428.8	460.2	483.6	487.3
150°	351.4	359.6	367.8	369.9	384.3	403.5	413.1	426.4	452.9	472.7	475.6
152.5°	360.0	366.3	372.5	374.1	387.1	404.4	413.1	424.4	447.1	464.0	466.2
155°	372.9	377.5	382.2	383.3	393.2	406.5	413.1	422.1	440.2	453.6	455.1
157.5°	382.5	387.0	391.5	392.7	399.5	408.6	413.1	420.2	434.1	444.5	445.6
160°	389.0	392.5	396.0	396.9	402.3	409.5	413.1	419.1	431.1	440.1	440.6
162.5°	395.5	398.1	400.7	401.4	405.3	410.5	413.1	418.2	428.3	435.9	436.4
165°	402.5	404.8	407.3	407.8	409.6	411.9	413.1	416.8	424.0	429.4	430.0
167.5°	408.9	410.1	411.2	411.5	413.0	414.9	415.9	418.3	423.0	426.6	426.9
170°	413.1	414.3	415.4	415.7	415.8	415.9	415.9	418.3	423.0	426.6	426.6
172.5°	415.4	415.7	415.9	415.9	415.9	415.9	415.9	417.8	421.6	424.4	424.2
175°	418.5	418.5	418.5	418.5	417.6	416.5	415.9	417.2	419.5	421.3	421.3
177.5°	418.5	418.5	418.5	418.5	417.8	417.0	416.5	417.4	419.3	420.7	420.4
180°	418.5	418.5	418.5	418.5	418.5	418.5	418.5	418.5	418.5	418.5	418.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1152.2	1152.2
2.5°	1230.0	1222.6
5°	1582.0	1589.4
7.5°	2130.3	2126.5
10°	2649.0	2682.2
12.5°	3026.9	3034.2
15°	3256.5	3271.4
17.5°	3345.4	3349.1
20°	3349.1	3341.8
22.5°	3308.4	3301.0
25°	3260.3	3256.5
27.5°	3215.8	3219.5
30°	3197.3	3208.4
32.5°	3197.3	3215.8
35°	3204.6	3223.1
37.5°	3200.9	3223.1
40°	3186.1	3212.0
42.5°	3145.4	3163.9
45°	3082.4	3104.6
47.5°	3000.9	3015.7
50°	2897.1	2912.0
52.5°	2767.5	2771.2
55°	2611.8	2626.7
57.5°	2445.2	2448.8
60°	2259.9	2271.1
62.5°	2063.6	2063.6
65°	1856.1	1863.5
67.5°	1641.3	1659.8
70°	1422.6	1426.4
72.5°	1207.7	1207.7
75°	985.5	989.2
77.5°	774.3	774.3
80°	574.3	577.9
82.5°	396.4	403.8
85°	248.3	248.3
87.5°	114.9	103.8
90°	10.7	10.7
92.5°	42.8	34.3
95°	149.0	123.3
97.5°	357.1	308.1
100°	514.5	456.1
102.5°	669.2	619.2
105°	866.6	839.7
107.5°	995.9	1002.4
110°	1045.2	1073.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1049.6	1092.5
115°	1021.7	1081.3
117.5°	962.7	1028.7
120°	915.2	979.3
122.5°	868.9	932.2
125°	802.7	861.1
127.5°	743.4	792.5
130°	708.4	753.8
132.5°	676.6	717.3
135°	633.1	668.1
137.5°	598.1	626.9
140°	574.2	601.0
142.5°	554.4	577.5
145°	524.6	542.0
147.5°	501.8	516.2
150°	487.4	499.0
152.5°	475.0	483.9
155°	460.9	466.8
157.5°	449.8	453.9
160°	443.1	445.4
162.5°	438.7	440.9
165°	432.4	434.7
167.5°	427.8	428.8
170°	426.6	426.6
172.5°	423.2	422.4
175°	421.3	421.3
177.5°	419.5	418.5
180°	418.5	418.5



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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	7.56	8.79	8.24	9.50	10.32	20.75	21.98	21.43	22.69	23.52
	3H	8.29	9.40	8.98	10.12	10.98	22.62	23.73	23.31	24.45	25.31
	4H	8.60	9.66	9.32	10.38	11.25	23.28	24.34	24.00	25.06	25.94
	6H	8.87	9.85	9.60	10.58	11.47	23.74	24.71	24.47	25.45	26.34
	8H	8.95	9.88	9.69	10.64	11.53	23.87	24.80	24.61	25.56	26.45
	12H	8.98	9.87	9.72	10.62	11.54	23.96	24.85	24.70	25.60	26.51
4H	2H	14.82	15.88	15.54	16.60	17.47	21.06	22.12	21.78	22.84	23.72
	3H	16.42	17.31	17.15	18.07	18.96	23.15	24.03	23.88	24.80	25.69
	4H	16.53	17.34	17.28	18.10	19.02	23.94	24.74	24.68	25.51	26.43
	6H	16.57	17.27	17.33	18.06	18.98	24.50	25.20	25.27	25.99	26.92
	8H	16.55	17.21	17.32	17.99	18.94	24.68	25.33	25.44	26.12	27.06
	12H	16.53	17.12	17.32	17.93	18.87	24.79	25.38	25.58	26.19	27.14
8H	4H	18.01	18.67	18.78	19.46	20.40	24.03	24.68	24.80	25.47	26.41
	6H	18.27	18.82	19.07	19.65	20.59	24.68	25.23	25.48	26.05	26.99
	8H	18.30	18.78	19.11	19.61	20.57	24.91	25.39	25.72	26.22	27.18
	12H	18.28	18.71	19.10	19.53	20.54	25.07	25.50	25.89	26.32	27.33
12H	4H	18.18	18.77	18.97	19.58	20.52	24.00	24.59	24.79	25.40	26.35
	6H	18.54	19.03	19.35	19.85	20.81	24.67	25.16	25.48	25.98	26.94
	8H	18.63	19.06	19.44	19.87	20.89	24.92	25.35	25.73	26.16	27.18