

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: P938237

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938237
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-92765-1D-UNV-STD-W-6-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

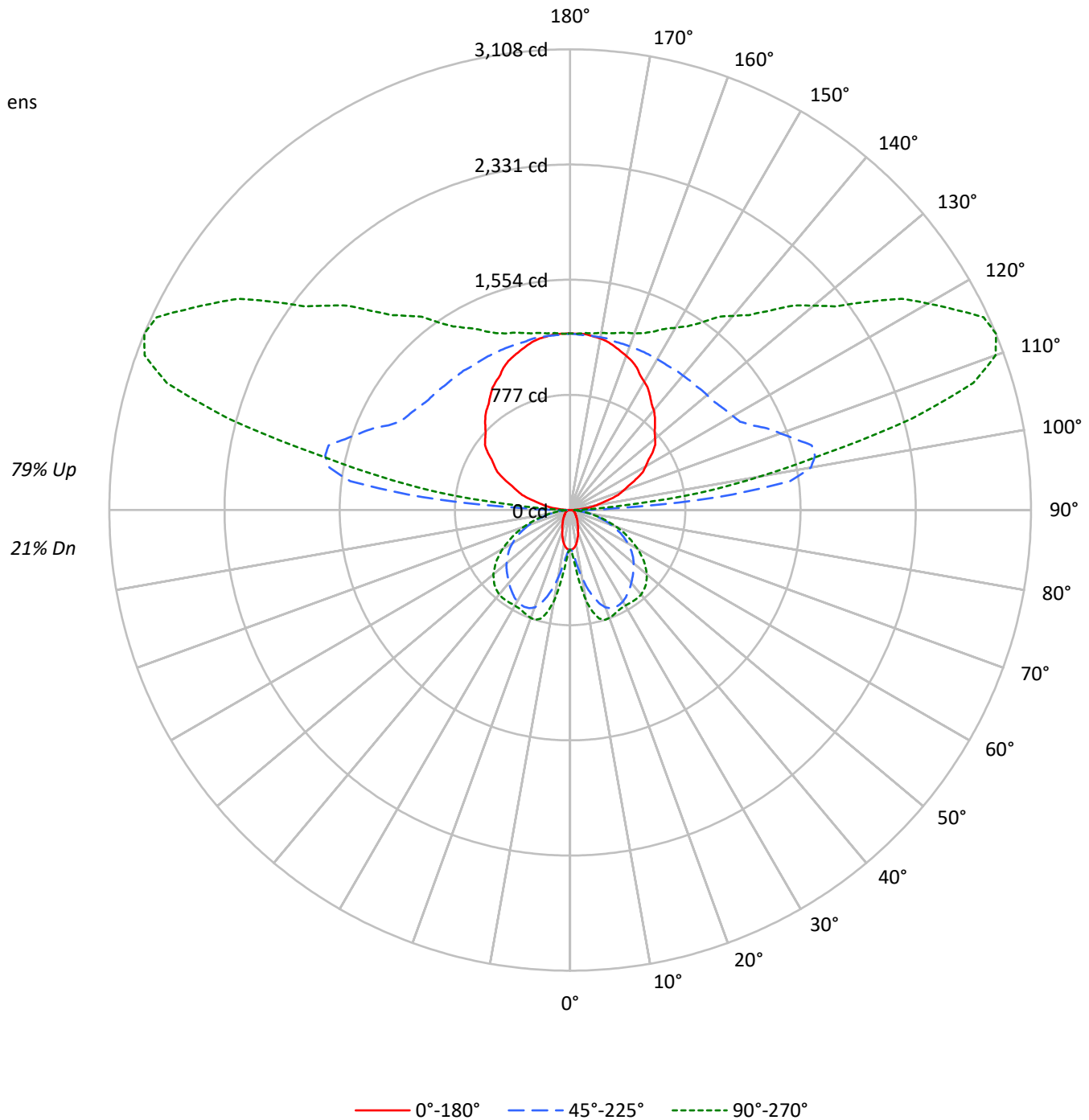
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9790.0 lumens
Efficiency: N/A
Efficacy: 117.4 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

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CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-6-2700K

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1653	1653	1653
5°	1614	1910	2222
10°	1464	2784	3683
15°	1243	3635	4447
20°	1012	4212	4533
25°	844	4406	4441
30°	711	4434	4432
35°	629	4358	4547
40°	548	4262	4665
45°	496	4190	4683
50°	454	4126	4606
55°	435	4032	4402
60°	445	3854	4080
65°	461	3582	3636
70°	491	3122	3072
75°	542	2543	2398
80°	586	1761	1615
85°	513	934	827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4683 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.6	0.4
10°-20°	153.2	1.6
20°-30°	267.9	2.7
30°-40°	344.9	3.5
40°-50°	385.3	3.9
50°-60°	369.0	3.8
60°-70°	292.4	3.0
70°-80°	171.9	1.8
80°-90°	52.3	0.5
90°-100°	580.4	5.9
100°-110°	1525.8	15.6
110°-120°	1582.1	16.2
120°-130°	1269.1	13.0
130°-140°	995.8	10.2
140°-150°	764.3	7.8
150°-160°	550.4	5.6
160°-170°	336.8	3.4
170°-180°	113.8	1.2
0°-30°	455.7	4.7
0°-40°	800.6	8.2
0°-60°	1554.8	15.9
0°-90°	2071.5	21.2
90°-120°	3688.4	37.7
90°-150°	6717.5	68.6
90°-180°	7719.0	78.8
0°-180°	9790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	267	267	267	267	267	
5°	260	279	314	356	369	24
15°	195	360	606	735	759	54
25°	125	408	722	754	755	57
35°	84	390	680	719	747	53
45°	58	311	601	689	720	45
55°	41	198	510	593	609	38
65°	33	105	379	426	432	32
75°	24	64	208	229	229	25
85°	9	20	52	57	58	9
90°	8	22	61	30	30	7
95°	77	300	1000	515	351	85
105°	275	416	1687	2561	2389	291
115°	488	593	1351	2695	3076	482
125°	679	762	1229	2077	2450	603
135°	810	891	1191	1676	1901	626
145°	939	999	1176	1430	1542	588
155°	1061	1091	1176	1290	1328	488
165°	1145	1160	1176	1222	1237	323
175°	1191	1191	1184	1199	1199	113
180°	1191	1191	1191	1191	1191	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2
2.5°	267.2	267.2	268.9	269.7	271.5	272.4	274.1	275.8	280.9	281.8	283.5
5°	260.3	263.8	274.9	279.2	291.3	307.6	314.4	325.6	348.8	355.7	360.0
7.5°	250.0	257.8	285.2	292.1	322.2	365.1	383.2	407.2	444.1	462.3	476.9
10°	233.7	250.0	298.9	315.3	364.3	429.5	463.1	496.6	552.4	577.3	586.8
12.5°	215.7	242.3	313.6	335.9	406.4	501.7	542.1	579.1	642.6	676.1	681.3
15°	195.0	231.1	327.3	360.0	451.1	561.8	606.5	652.1	711.4	735.4	741.5
17.5°	177.0	222.5	340.2	374.6	485.4	616.0	661.5	699.4	747.4	763.8	768.0
20°	154.7	208.7	348.8	393.5	521.5	655.5	699.4	728.6	761.2	771.5	773.2
22.5°	138.3	194.1	354.0	400.3	545.5	679.5	716.5	739.7	762.1	765.5	766.3
25°	124.6	177.8	353.1	408.1	566.2	694.1	722.5	739.7	752.6	754.3	754.3
27.5°	111.7	159.8	349.7	409.8	581.7	697.7	719.9	732.0	738.0	741.5	741.5
30°	100.5	142.6	341.1	406.4	588.5	694.1	712.3	718.2	724.2	729.4	732.0
32.5°	91.9	126.3	328.2	399.5	589.3	685.6	698.5	701.9	710.5	722.5	726.9
35°	84.2	110.0	313.6	390.1	584.2	671.9	680.4	683.9	701.1	719.1	725.1
37.5°	76.4	98.0	294.7	373.8	576.5	655.5	661.5	667.6	694.1	715.7	722.5
40°	68.8	87.6	272.4	355.7	564.5	635.7	640.9	650.3	685.6	710.5	717.4
42.5°	62.7	79.0	248.3	336.8	548.9	613.4	621.1	634.9	675.3	701.9	709.6
45°	57.6	70.5	222.5	311.0	529.2	590.2	601.4	620.3	663.2	689.0	695.9
47.5°	52.4	64.4	195.9	284.3	507.8	567.1	581.7	603.1	646.9	671.9	677.8
50°	48.1	58.4	169.3	256.0	484.5	542.1	559.3	581.7	626.3	649.5	657.3
52.5°	44.7	53.3	144.3	227.7	457.9	516.3	536.1	559.3	601.4	623.8	628.9
55°	41.3	48.9	122.8	197.6	430.4	488.8	510.3	532.6	573.9	592.8	596.3
57.5°	39.5	45.5	104.8	169.3	401.2	457.9	482.0	502.6	541.3	555.9	559.3
60°	37.0	43.0	91.1	145.2	369.4	428.7	449.4	469.9	502.6	514.6	517.2
62.5°	34.3	41.3	80.8	122.0	336.8	394.4	414.9	433.9	461.3	469.9	473.4
65°	32.6	39.5	73.0	104.8	303.3	358.2	378.9	395.2	417.5	426.1	427.8
67.5°	30.9	37.8	67.0	90.2	269.7	322.2	337.6	353.1	370.3	378.9	379.7
70°	28.4	36.0	61.8	79.9	235.4	280.9	293.8	310.1	323.9	328.2	330.8
72.5°	26.6	33.5	58.4	72.2	200.2	241.4	253.4	262.9	274.9	279.2	279.2
75°	24.1	30.1	55.0	64.4	164.1	197.6	207.9	217.4	226.8	228.6	225.9
77.5°	21.4	26.6	47.2	54.2	128.0	156.4	164.9	170.1	177.8	179.5	180.4
80°	18.0	23.2	37.0	42.1	92.8	115.1	121.1	125.5	132.3	132.3	134.0
82.5°	13.8	18.0	26.6	30.1	62.7	79.0	84.2	86.8	91.1	91.1	91.1
85°	8.6	11.2	17.2	19.7	37.8	48.1	51.6	52.4	55.9	56.7	56.7
87.5°	4.3	6.0	11.2	12.0	19.7	24.9	24.9	26.6	26.6	25.8	24.9
90°	8.0	14.4	20.8	22.4	35.2	52.2	60.7	54.0	40.5	30.4	30.4
92.5°	31.9	86.3	140.7	154.3	216.9	300.3	342.0	299.7	215.2	151.9	145.8
95°	76.7	176.1	275.6	300.5	533.6	844.3	999.7	892.1	676.8	515.4	497.1
97.5°	132.6	220.4	308.1	330.0	718.7	1236.9	1495.9	1427.9	1291.9	1189.9	1155.0
100°	175.8	255.4	334.9	354.8	786.1	1361.1	1648.6	1653.5	1663.5	1670.9	1629.5
102.5°	212.6	286.8	361.0	379.6	817.0	1400.1	1691.7	1778.3	1951.6	2081.6	2046.1
105°	274.9	337.7	400.6	416.3	839.9	1404.5	1686.9	1881.1	2269.7	2561.1	2542.0
107.5°	338.8	397.4	456.0	470.6	844.0	1342.0	1591.0	1862.0	2403.9	2810.4	2815.0
110°	382.0	434.9	487.8	501.0	837.7	1286.6	1511.0	1814.0	2419.9	2874.3	2894.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	424.3	474.7	525.1	537.8	838.0	1238.2	1438.4	1748.4	2368.5	2833.6	2864.1
115°	488.2	534.8	581.3	592.9	845.7	1182.7	1351.2	1649.9	2247.3	2695.3	2737.7
117.5°	551.3	593.6	635.9	646.5	861.5	1148.0	1291.4	1560.9	2100.0	2504.3	2551.3
120°	588.2	628.0	667.8	677.7	874.2	1136.3	1267.4	1513.7	2006.3	2375.7	2421.3
122.5°	624.1	664.3	704.4	714.4	892.6	1130.2	1249.0	1470.8	1914.4	2247.0	2292.1
125°	679.2	715.8	752.4	761.5	917.3	1125.1	1229.0	1417.4	1794.2	2076.8	2118.2
127.5°	724.0	760.9	797.8	807.1	942.1	1122.2	1212.2	1374.0	1697.5	1940.2	1975.2
130°	748.0	787.8	827.6	837.5	960.3	1124.0	1205.9	1349.9	1637.9	1853.9	1886.2
132.5°	772.7	812.5	852.3	862.2	974.9	1125.1	1200.2	1329.1	1587.0	1780.3	1809.3
135°	809.5	845.7	882.0	891.0	990.9	1124.0	1190.7	1298.6	1514.5	1676.5	1701.4
137.5°	847.0	882.9	918.8	927.8	1014.9	1131.0	1189.0	1280.3	1462.9	1599.8	1620.2
140°	878.2	911.3	944.2	952.5	1029.5	1132.1	1183.5	1262.3	1420.0	1538.3	1557.3
142.5°	902.1	932.7	963.3	970.9	1041.8	1136.2	1183.5	1252.7	1391.2	1495.1	1511.5
145°	938.9	965.6	992.2	998.9	1057.8	1136.2	1175.5	1232.1	1345.4	1430.4	1442.8
147.5°	975.7	1001.6	1027.5	1034.0	1081.2	1144.0	1175.5	1220.0	1309.1	1376.0	1386.3
150°	999.7	1023.1	1046.5	1052.4	1093.4	1148.1	1175.5	1213.1	1288.4	1344.8	1353.2
152.5°	1024.4	1042.2	1060.0	1064.4	1101.4	1150.8	1175.5	1207.6	1271.9	1320.1	1326.4
155°	1061.2	1074.3	1087.5	1090.7	1119.0	1156.7	1175.5	1201.0	1252.2	1290.5	1294.7
157.5°	1088.3	1101.1	1114.0	1117.1	1136.6	1162.5	1175.5	1195.4	1235.2	1265.0	1267.9
160°	1106.8	1116.7	1126.6	1129.1	1144.5	1165.1	1175.5	1192.5	1226.6	1252.2	1253.9
162.5°	1125.1	1132.6	1140.0	1141.9	1153.1	1168.0	1175.5	1189.8	1218.6	1240.2	1241.8
165°	1145.1	1151.9	1158.5	1160.2	1165.3	1172.0	1175.5	1185.8	1206.4	1221.8	1223.5
167.5°	1163.5	1166.7	1169.9	1170.7	1174.9	1180.7	1183.5	1190.2	1203.7	1213.8	1214.5
170°	1175.5	1178.6	1181.9	1182.6	1182.9	1183.3	1183.5	1190.2	1203.7	1213.8	1213.8
172.5°	1181.9	1182.5	1183.3	1183.5	1183.5	1183.5	1183.5	1188.8	1199.5	1207.4	1206.8
175°	1190.7	1190.7	1190.7	1190.7	1188.3	1185.1	1183.5	1186.8	1193.6	1198.6	1198.6
177.5°	1190.7	1190.7	1190.7	1190.7	1188.8	1186.3	1185.0	1187.7	1193.0	1197.1	1196.4
180°	1190.7	1190.7	1190.7	1190.7	1190.7	1190.7	1190.7	1190.7	1190.7	1190.7	1190.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	267.2	267.2
2.5°	285.2	283.5
5°	366.8	368.6
7.5°	494.0	493.2
10°	614.3	622.0
12.5°	701.9	703.6
15°	755.2	758.6
17.5°	775.8	776.7
20°	776.7	775.0
22.5°	767.2	765.5
25°	756.1	755.2
27.5°	745.7	746.6
30°	741.5	744.0
32.5°	741.5	745.7
35°	743.2	747.4
37.5°	742.3	747.4
40°	738.8	744.9
42.5°	729.4	733.7
45°	714.8	719.9
47.5°	695.9	699.4
50°	671.9	675.3
52.5°	641.8	642.6
55°	605.7	609.2
57.5°	567.1	567.9
60°	524.1	526.7
62.5°	478.6	478.6
65°	430.4	432.1
67.5°	380.6	384.9
70°	329.9	330.8
72.5°	280.1	280.1
75°	228.6	229.4
77.5°	179.5	179.5
80°	133.2	134.0
82.5°	91.9	93.6
85°	57.6	57.6
87.5°	26.6	24.1
90°	30.4	30.4
92.5°	121.6	97.5
95°	423.9	350.8
97.5°	1015.8	876.6
100°	1463.6	1297.8
102.5°	1904.0	1762.0
105°	2465.6	2389.3
107.5°	2833.5	2851.9
110°	2973.7	3053.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2986.3	3108.4
115°	2907.0	3076.5
117.5°	2739.2	2927.1
120°	2603.9	2786.4
122.5°	2472.1	2652.2
125°	2284.1	2450.0
127.5°	2115.1	2255.1
130°	2015.5	2144.7
132.5°	1925.0	2040.9
135°	1801.3	1901.0
137.5°	1701.9	1783.6
140°	1633.7	1710.0
142.5°	1577.2	1642.9
145°	1492.5	1542.2
147.5°	1427.5	1468.8
150°	1386.6	1420.0
152.5°	1351.6	1376.9
155°	1311.3	1328.1
157.5°	1279.7	1291.4
160°	1260.6	1267.4
162.5°	1248.1	1254.5
165°	1230.2	1236.9
167.5°	1217.4	1220.2
170°	1213.8	1213.8
172.5°	1204.3	1201.8
175°	1198.6	1198.6
177.5°	1193.5	1190.7
180°	1190.7	1190.7



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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	0.00	0.34	0.99	2.62	12.34	13.00	13.50	14.15	15.78
	3H	0.00	0.45	1.03	1.62	3.26	14.16	14.75	15.33	15.91	17.56
	4H	0.15	0.72	1.33	1.88	3.53	14.79	15.35	15.97	16.52	18.16
	6H	0.39	0.91	1.58	2.07	3.73	15.20	15.72	16.39	16.89	18.55
	8H	0.45	0.95	1.64	2.12	3.78	15.32	15.81	16.51	16.99	18.64
	12H	0.46	0.93	1.66	2.10	3.78	15.37	15.84	16.57	17.02	18.69
4H	2H	6.35	6.92	7.54	8.08	9.73	12.59	13.15	13.78	14.31	15.96
	3H	7.90	8.38	9.10	9.56	11.22	14.61	15.08	15.80	16.27	17.93
	4H	7.99	8.43	9.18	9.60	11.28	15.36	15.80	16.56	16.97	18.65
	6H	7.99	8.36	9.19	9.56	11.23	15.89	16.26	17.09	17.46	19.12
	8H	7.96	8.31	9.16	9.50	11.18	16.04	16.39	17.24	17.58	19.26
	12H	7.91	8.22	9.12	9.42	11.11	16.12	16.44	17.33	17.64	19.33
8H	4H	9.41	9.76	10.61	10.95	12.63	15.41	15.75	16.60	16.94	18.63
	6H	9.65	9.93	10.86	11.16	12.85	16.02	16.31	17.24	17.54	19.22
	8H	9.66	9.91	10.88	11.12	12.82	16.24	16.49	17.46	17.69	19.40
	12H	9.62	9.84	10.85	11.05	12.78	16.37	16.59	17.59	17.79	19.52
12H	4H	9.54	9.86	10.76	11.06	12.75	15.35	15.67	16.56	16.86	18.55
	6H	9.90	10.15	11.12	11.36	13.06	16.00	16.25	17.22	17.46	19.16
	8H	9.96	10.18	11.19	11.39	13.12	16.22	16.44	17.45	17.65	19.38