

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: P936613

Luminaire Tested: SQ4-FB-050U-050D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

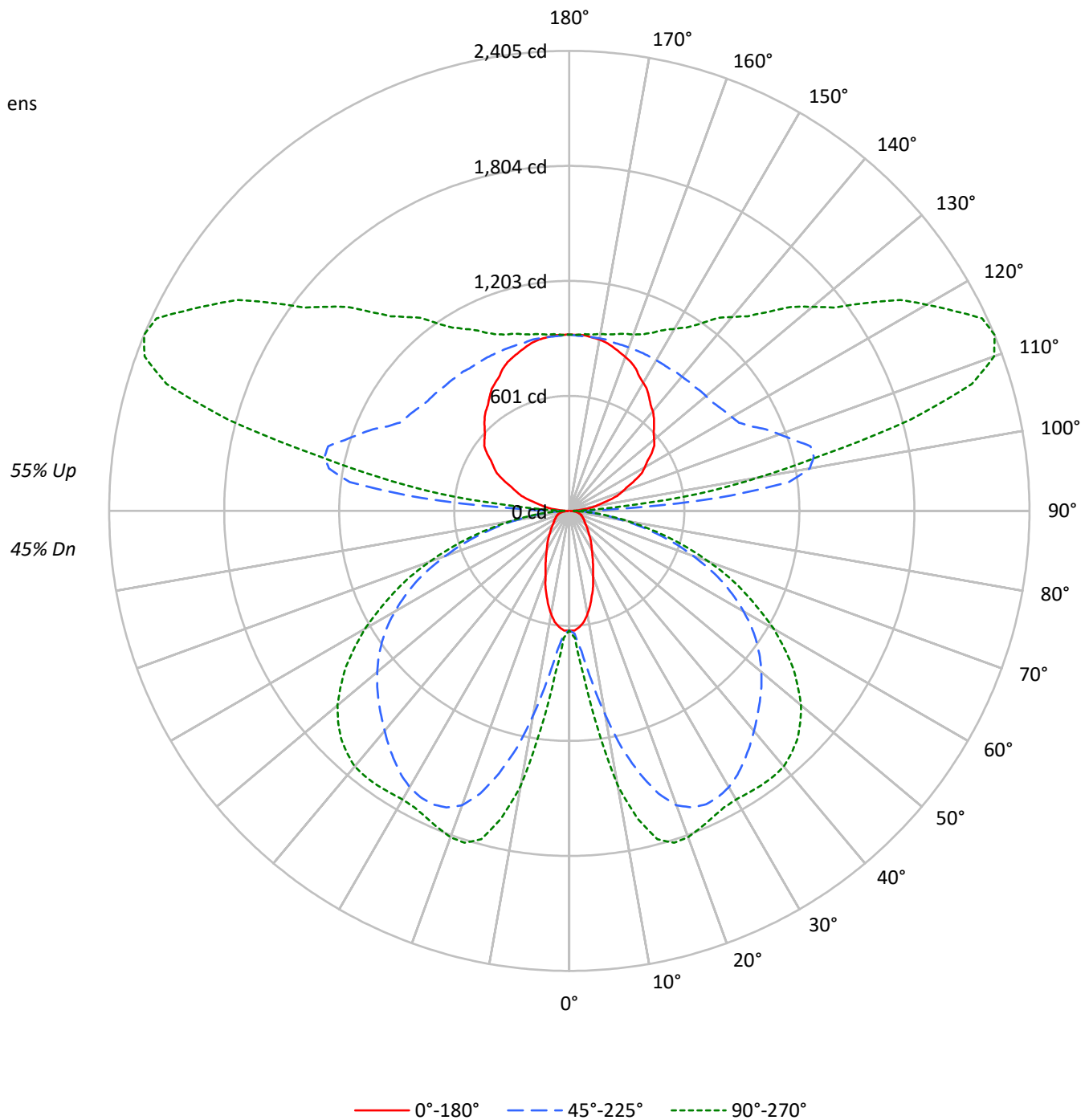
Test Method: LM-79-2019  
Report Number: P936613  
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-835-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10817.0 lumens  
Efficiency: N/A  
Efficacy: 127.0 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: General Diffuse  
  
Input Watts (W): 85.2  
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





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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37	37	37	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

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

	0°	45°	90°
0°	1936	1936	1936
5°	1892	2238	2602
10°	1716	3263	4313
15°	1460	4264	5208
20°	1189	4942	5308
25°	992	5173	5200
30°	837	5207	5190
35°	740	5122	5325
40°	646	5011	5463
45°	585	4930	5485
50°	537	4858	5394
55°	515	4751	5155
60°	527	4545	4777
65°	550	4230	4258
70°	587	3691	3598
75°	653	3012	2807
80°	719	2091	1892
85°	651	1111	968

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5485 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.9	0.7
10°-20°	358.8	3.3
20°-30°	627.5	5.8
30°-40°	807.8	7.5
40°-50°	902.3	8.3
50°-60°	864.2	8.0
60°-70°	684.9	6.3
70°-80°	402.7	3.7
80°-90°	115.4	1.1
90°-100°	449.1	4.2
100°-110°	1180.7	10.9
110°-120°	1224.2	11.3
120°-130°	982.0	9.1
130°-140°	770.5	7.1
140°-150°	591.4	5.5
150°-160°	425.9	3.9
160°-170°	260.6	2.4
170°-180°	88.0	0.8
0°-30°	1067.2	9.9
0°-40°	1875.0	17.3
0°-60°	3641.5	33.7
0°-90°	4844.5	44.8
90°-120°	2854.0	26.4
90°-150°	5197.9	48.1
90°-180°	5972.0	55.2
0°-180°	10817.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	626	626	626	626	626	
5°	610	654	736	833	863	56
15°	457	843	1421	1722	1777	127
25°	292	956	1692	1767	1769	134
35°	197	914	1594	1684	1751	123
45°	135	728	1408	1614	1686	104
55°	97	463	1195	1388	1427	88
65°	76	246	887	998	1012	76
75°	56	151	487	535	537	59
85°	20	46	121	133	135	21
90°	6	17	47	24	24	6
95°	59	232	774	399	271	66
105°	213	322	1305	1982	1849	226
115°	378	459	1046	2086	2381	373
125°	526	589	951	1607	1896	467
135°	626	689	921	1297	1471	485
145°	726	773	910	1107	1193	455
155°	821	844	910	999	1028	377
165°	886	898	910	945	957	250
175°	921	921	916	928	928	87
180°	921	921	921	921	921	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8
2.5°	625.8	625.8	629.8	631.8	635.8	637.8	641.9	645.9	658.0	660.0	664.0
5°	609.7	617.7	643.9	653.9	682.1	720.3	736.4	762.6	816.9	833.0	843.1
7.5°	585.5	603.6	668.0	684.1	754.6	855.2	897.4	953.8	1040.3	1082.5	1116.7
10°	547.3	585.5	700.2	738.5	853.1	1006.1	1084.5	1163.0	1293.8	1352.2	1374.3
12.5°	505.0	567.4	734.4	786.7	951.7	1175.1	1269.7	1356.2	1505.1	1583.6	1595.6
15°	456.8	541.3	766.6	843.1	1056.4	1315.9	1420.6	1527.2	1666.1	1722.4	1736.5
17.5°	414.5	521.1	796.8	877.3	1136.9	1442.7	1549.3	1637.9	1750.6	1788.8	1798.9
20°	362.2	489.0	816.9	921.6	1221.4	1535.3	1637.9	1706.3	1782.8	1806.9	1810.9
22.5°	324.0	454.7	829.0	937.7	1277.7	1591.6	1678.1	1732.5	1784.8	1792.8	1794.8
25°	291.8	416.5	827.0	955.8	1326.0	1625.8	1692.2	1732.5	1762.6	1766.7	1766.7
27.5°	261.6	374.3	818.9	959.8	1362.2	1633.9	1686.2	1714.3	1728.4	1736.5	1736.5
30°	235.4	334.0	798.8	951.7	1378.3	1625.8	1668.1	1682.2	1696.2	1708.3	1714.3
32.5°	215.3	295.8	768.6	935.6	1380.3	1605.7	1635.9	1643.9	1664.0	1692.2	1702.3
35°	197.2	257.6	734.4	913.5	1368.3	1573.5	1593.6	1601.7	1641.9	1684.2	1698.2
37.5°	179.1	229.4	690.2	875.3	1350.1	1535.3	1549.3	1563.4	1625.8	1676.1	1692.2
40°	161.0	205.2	637.8	833.0	1322.0	1489.0	1501.1	1523.2	1605.7	1664.0	1680.1
42.5°	146.9	185.1	581.5	788.8	1285.8	1436.7	1454.8	1487.0	1581.5	1643.9	1662.0
45°	134.8	165.0	521.1	728.4	1239.5	1382.3	1408.5	1452.8	1553.4	1613.7	1629.8
47.5°	122.7	150.9	458.8	666.0	1189.2	1328.0	1362.2	1412.5	1515.1	1573.5	1587.6
50°	112.7	136.8	396.4	599.6	1134.8	1269.7	1309.9	1362.2	1466.9	1521.2	1539.3
52.5°	104.6	124.8	338.0	533.2	1072.5	1209.3	1255.6	1309.9	1408.5	1460.8	1472.9
55°	96.6	114.7	287.7	462.8	1008.1	1144.9	1195.2	1247.5	1344.1	1388.4	1396.4
57.5°	92.6	106.6	245.5	396.4	939.7	1072.5	1128.8	1177.1	1267.6	1301.9	1309.9
60°	86.5	100.6	213.3	340.1	865.2	1004.1	1052.4	1100.6	1177.1	1205.3	1211.3
62.5°	80.5	96.6	189.1	285.7	788.8	923.6	971.9	1016.1	1080.5	1100.6	1108.7
65°	76.5	92.6	171.0	245.5	710.3	839.1	887.4	925.6	977.9	998.0	1002.0
67.5°	72.4	88.5	156.9	211.3	631.8	754.6	790.8	827.0	867.2	887.4	889.4
70°	66.4	84.5	144.9	187.1	551.3	658.0	688.2	726.4	758.6	768.6	774.7
72.5°	62.4	78.5	136.8	169.0	468.8	565.4	593.6	615.7	643.9	653.9	653.9
75°	56.3	70.4	128.8	150.9	384.3	462.8	486.9	509.1	531.2	535.2	529.2
77.5°	50.3	62.4	110.7	126.8	299.8	366.2	386.3	398.4	416.5	420.5	422.5
80°	42.3	54.3	86.5	98.6	217.3	269.6	283.7	293.8	309.9	309.9	313.9
82.5°	32.2	42.3	62.4	70.4	146.9	185.1	197.2	203.2	213.3	213.3	213.3
85°	20.1	26.2	40.2	46.3	88.5	112.7	120.7	122.7	130.8	132.8	132.8
87.5°	10.1	14.1	26.2	28.2	46.3	58.4	58.4	62.4	62.4	60.4	58.4
90°	6.2	11.1	16.1	17.3	27.2	40.4	47.0	41.8	31.3	23.5	23.5
92.5°	24.7	66.7	108.8	119.3	167.7	232.3	264.6	231.9	166.5	117.5	112.8
95°	59.4	136.3	213.3	232.5	412.8	653.3	773.5	690.2	523.7	398.8	384.6
97.5°	102.6	170.5	238.4	255.4	556.1	957.0	1157.5	1104.9	999.6	920.7	893.8
100°	136.0	197.6	259.1	274.5	608.2	1053.1	1275.6	1279.4	1287.1	1292.9	1260.8
102.5°	164.5	221.9	279.3	293.7	632.1	1083.4	1309.0	1376.0	1510.1	1610.7	1583.2
105°	212.7	261.3	309.9	322.1	649.8	1086.8	1305.3	1455.6	1756.2	1981.7	1966.9
107.5°	262.2	307.5	352.9	364.2	653.2	1038.5	1231.1	1440.8	1860.2	2174.7	2178.3
110°	295.6	336.5	377.5	387.7	648.2	995.6	1169.3	1403.7	1872.5	2224.1	2239.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	328.3	367.3	406.3	416.1	648.4	958.1	1113.0	1352.9	1832.7	2192.6	2216.2
115°	377.8	413.8	449.8	458.8	654.4	915.2	1045.6	1276.7	1738.9	2085.6	2118.4
117.5°	426.6	459.3	492.0	500.2	666.5	888.3	999.2	1207.8	1624.9	1937.8	1974.1
120°	455.1	485.9	516.6	524.3	676.4	879.3	980.7	1171.3	1552.4	1838.3	1873.6
122.5°	482.9	514.0	545.0	552.8	690.7	874.5	966.4	1138.0	1481.3	1738.7	1773.5
125°	525.6	553.9	582.2	589.3	709.9	870.6	951.0	1096.8	1388.3	1607.0	1639.1
127.5°	560.2	588.8	617.4	624.5	729.0	868.3	938.0	1063.2	1313.5	1501.3	1528.4
130°	578.8	609.6	640.3	648.0	743.0	869.7	933.1	1044.5	1267.4	1434.5	1459.5
132.5°	597.9	628.7	659.5	667.2	754.4	870.6	928.7	1028.5	1228.0	1377.6	1400.0
135°	626.4	654.4	682.4	689.4	766.7	869.8	921.3	1004.9	1172.0	1297.3	1316.6
137.5°	655.4	683.2	711.0	717.9	785.3	875.2	920.1	990.7	1132.0	1237.9	1253.7
140°	679.5	705.1	730.6	737.0	796.6	876.0	915.7	976.7	1098.8	1190.3	1205.1
142.5°	698.1	721.7	745.4	751.3	806.1	879.2	915.7	969.3	1076.5	1156.9	1169.6
145°	726.5	747.1	767.7	772.9	818.5	879.2	909.6	953.4	1041.1	1106.8	1116.4
147.5°	755.0	775.0	795.1	800.1	836.6	885.3	909.6	944.1	1013.1	1064.8	1072.8
150°	773.5	791.6	809.8	814.3	846.1	888.4	909.6	938.7	996.9	1040.6	1047.1
152.5°	792.7	806.4	820.2	823.6	852.3	890.5	909.6	934.5	984.2	1021.5	1026.4
155°	821.1	831.3	841.5	844.0	865.9	895.0	909.6	929.4	968.9	998.6	1001.8
157.5°	842.2	852.1	861.9	864.4	879.5	899.6	909.6	925.0	955.7	978.8	981.1
160°	856.4	864.1	871.8	873.7	885.7	901.6	909.6	922.8	949.1	968.9	970.2
162.5°	870.6	876.4	882.2	883.6	892.3	903.8	909.6	920.7	942.9	959.6	960.8
165°	886.1	891.3	896.5	897.8	901.7	907.0	909.6	917.6	933.5	945.4	946.7
167.5°	900.3	902.7	905.2	905.8	909.1	913.5	915.7	920.9	931.4	939.2	939.8
170°	909.6	912.0	914.5	915.1	915.3	915.6	915.7	920.9	931.4	939.2	939.2
172.5°	914.5	915.0	915.6	915.7	915.7	915.7	915.7	919.8	928.1	934.3	933.8
175°	921.3	921.3	921.3	921.3	919.4	916.9	915.7	918.3	923.6	927.5	927.5
177.5°	921.3	921.3	921.3	921.3	919.9	918.0	917.0	919.1	923.2	926.3	925.7
180°	921.3	921.3	921.3	921.3	921.3	921.3	921.3	921.3	921.3	921.3	921.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	625.8	625.8
2.5°	668.0	664.0
5°	859.2	863.2
7.5°	1157.0	1155.0
10°	1438.7	1456.8
12.5°	1643.9	1647.9
15°	1768.7	1776.7
17.5°	1817.0	1819.0
20°	1819.0	1815.0
22.5°	1796.8	1792.8
25°	1770.7	1768.7
27.5°	1746.5	1748.6
30°	1736.5	1742.5
32.5°	1736.5	1746.5
35°	1740.5	1750.6
37.5°	1738.5	1750.6
40°	1730.4	1744.5
42.5°	1708.3	1718.4
45°	1674.1	1686.2
47.5°	1629.8	1637.9
50°	1573.5	1581.5
52.5°	1503.1	1505.1
55°	1418.6	1426.6
57.5°	1328.0	1330.0
60°	1227.4	1233.4
62.5°	1120.8	1120.8
65°	1008.1	1012.1
67.5°	891.4	901.4
70°	772.7	774.7
72.5°	656.0	656.0
75°	535.2	537.2
77.5°	420.5	420.5
80°	311.9	313.9
82.5°	215.3	219.3
85°	134.8	134.8
87.5°	62.4	56.3
90°	23.5	23.5
92.5°	94.1	75.4
95°	328.0	271.4
97.5°	786.0	678.3
100°	1132.5	1004.2
102.5°	1473.3	1363.4
105°	1907.9	1848.8
107.5°	2192.5	2206.8
110°	2301.0	2362.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2310.8	2405.3
115°	2249.5	2380.6
117.5°	2119.5	2264.9
120°	2014.9	2156.1
122.5°	1912.9	2052.2
125°	1767.4	1895.8
127.5°	1636.6	1744.9
130°	1559.6	1659.6
132.5°	1489.6	1579.2
135°	1393.8	1471.0
137.5°	1316.9	1380.1
140°	1264.1	1323.2
142.5°	1220.5	1271.3
145°	1154.9	1193.4
147.5°	1104.6	1136.5
150°	1072.9	1098.8
152.5°	1045.9	1065.4
155°	1014.8	1027.7
157.5°	990.1	999.2
160°	975.5	980.7
162.5°	965.8	970.8
165°	952.0	957.2
167.5°	942.0	944.2
170°	939.2	939.2
172.5°	931.9	930.0
175°	927.5	927.5
177.5°	923.5	921.3
180°	921.3	921.3



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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	2.81	3.66	3.80	4.67	6.01	16.00	16.85	16.99	17.86	19.20
	3H	3.51	4.28	4.52	5.30	6.66	17.85	18.61	18.85	19.63	20.99
	4H	3.81	4.53	4.83	5.56	6.93	18.49	19.22	19.51	20.24	21.61
	6H	4.06	4.73	5.09	5.75	7.14	18.93	19.59	19.95	20.62	22.00
	8H	4.13	4.76	5.16	5.81	7.19	19.05	19.69	20.08	20.73	22.11
	12H	4.15	4.75	5.18	5.79	7.19	19.12	19.73	20.16	20.76	22.17
4H	2H	10.03	10.76	11.05	11.78	13.15	16.27	17.00	17.30	18.02	19.39
	3H	11.60	12.20	12.63	13.25	14.64	18.32	18.93	19.35	19.98	21.36
	4H	11.69	12.25	12.73	13.29	14.69	19.09	19.65	20.13	20.69	22.10
	6H	11.70	12.18	12.75	13.25	14.65	19.64	20.11	20.69	21.18	22.58
	8H	11.68	12.12	12.73	13.18	14.60	19.80	20.25	20.85	21.31	22.72
	12H	11.63	12.04	12.70	13.11	14.53	19.90	20.30	20.97	21.37	22.80
8H	4H	13.14	13.59	14.19	14.64	16.06	19.15	19.60	20.20	20.66	22.07
	6H	13.38	13.75	14.45	14.85	16.26	19.79	20.16	20.86	21.26	22.67
	8H	13.40	13.72	14.48	14.81	16.24	20.01	20.33	21.09	21.42	22.85
	12H	13.37	13.65	14.45	14.73	16.20	20.15	20.44	21.24	21.52	22.99
12H	4H	13.28	13.69	14.35	14.76	16.18	19.10	19.51	20.17	20.58	22.00
	6H	13.64	13.97	14.72	15.05	16.48	19.77	20.09	20.85	21.18	22.61
	8H	13.71	14.00	14.79	15.07	16.55	20.00	20.29	21.09	21.37	22.84