

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: P938265

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938265
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

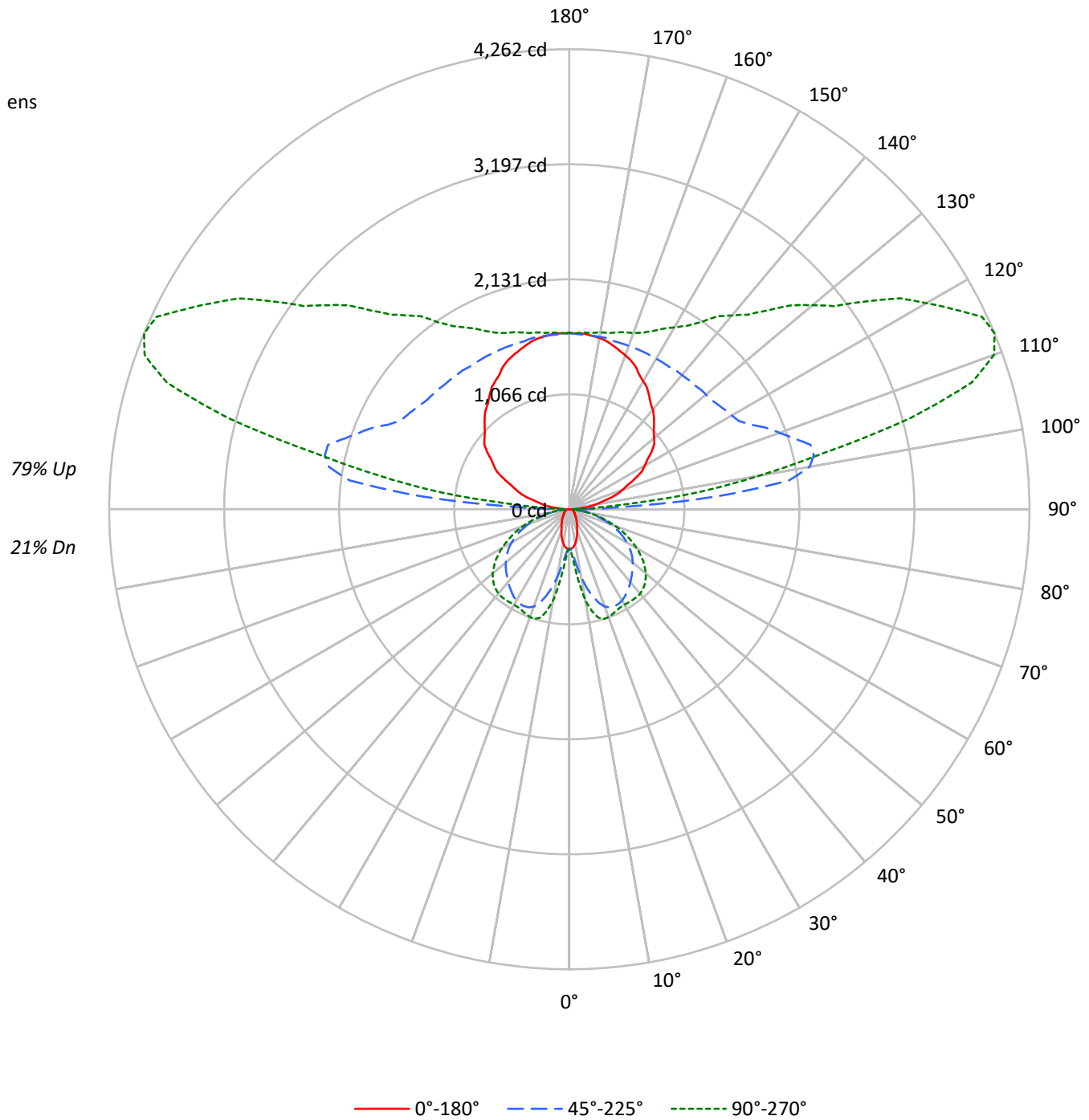
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13423.1 lumens
Efficiency: N/A
Efficacy: 120.7 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-Indirect

Input Watts (W): 111.2
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	0
RCR																		
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1699	1699	1699
5°	1660	1965	2285
10°	1506	2864	3788
15°	1280	3742	4574
20°	1042	4336	4661
25°	869	4537	4567
30°	733	4566	4558
35°	648	4490	4676
40°	565	4391	4798
45°	512	4319	4817
50°	469	4254	4737
55°	450	4159	4527
60°	460	3977	4195
65°	479	3699	3740
70°	510	3226	3160
75°	565	2630	2465
80°	619	1824	1661
85°	550	968	851

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4817 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	0.4
10°-20°	210.0	1.6
20°-30°	367.4	2.7
30°-40°	472.9	3.5
40°-50°	528.3	3.9
50°-60°	506.0	3.8
60°-70°	401.0	3.0
70°-80°	235.8	1.8
80°-90°	71.7	0.5
90°-100°	795.8	5.9
100°-110°	2092.1	15.6
110°-120°	2169.2	16.2
120°-130°	1740.0	13.0
130°-140°	1365.3	10.2
140°-150°	1047.9	7.8
150°-160°	754.7	5.6
160°-170°	461.7	3.4
170°-180°	156.0	1.2
0°-30°	624.8	4.7
0°-40°	1097.8	8.2
0°-60°	2132.0	15.9
0°-90°	2840.5	21.2
90°-120°	5057.0	37.7
90°-150°	9210.2	68.6
90°-180°	10583.0	78.8
0°-180°	13423.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	357	383	431	488	505	33
15°	267	494	832	1008	1040	74
25°	171	560	991	1034	1036	79
35°	115	535	933	986	1025	72
45°	79	426	825	945	987	61
55°	57	271	700	813	835	52
65°	45	144	520	584	593	44
75°	33	88	285	313	314	35
85°	12	27	71	78	79	13
90°	11	31	83	42	42	10
95°	105	412	1371	707	481	117
105°	377	571	2313	3511	3276	400
115°	669	813	1853	3696	4218	661
125°	931	1044	1685	2848	3359	827
135°	1110	1222	1632	2299	2606	859
145°	1287	1370	1612	1961	2114	806
155°	1455	1496	1612	1769	1821	669
165°	1570	1591	1612	1675	1696	443
175°	1632	1632	1623	1643	1643	155
180°	1632	1632	1632	1632	1632	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3	366.3
2.5°	366.3	366.3	368.7	369.9	372.2	373.5	375.8	378.2	385.2	386.4	388.7
5°	356.9	361.7	377.0	382.9	399.4	421.8	431.2	446.4	478.3	487.7	493.6
7.5°	342.8	353.4	391.1	400.5	441.8	500.6	525.4	558.4	609.0	633.8	653.8
10°	320.4	342.8	410.0	432.4	499.5	589.0	635.0	680.9	757.4	791.6	804.6
12.5°	295.7	332.2	430.0	460.6	557.2	688.0	743.4	794.0	881.2	927.1	934.2
15°	267.4	316.9	448.8	493.6	618.5	770.4	831.8	894.1	975.4	1008.4	1016.6
17.5°	242.7	305.1	466.6	513.6	665.6	844.7	907.1	958.9	1024.9	1047.3	1053.2
20°	212.0	286.2	478.3	539.5	715.1	898.9	958.9	999.0	1043.8	1057.9	1060.3
22.5°	189.6	266.2	485.3	548.9	748.0	931.9	982.5	1014.3	1044.9	1049.7	1050.8
25°	170.8	243.8	484.2	559.6	776.3	951.9	990.7	1014.3	1032.0	1034.4	1034.4
27.5°	153.2	219.1	479.5	561.9	797.6	956.6	987.2	1003.7	1012.0	1016.6	1016.6
30°	137.8	195.6	467.7	557.2	807.0	951.9	976.6	984.8	993.1	1000.2	1003.7
32.5°	126.0	173.2	450.0	547.8	808.1	940.0	957.8	962.4	974.2	990.7	996.6
35°	115.4	150.8	430.0	534.8	801.1	921.2	933.0	937.8	961.3	986.1	994.2
37.5°	104.9	134.3	404.1	512.5	790.5	898.9	907.1	915.4	951.9	981.3	990.7
40°	94.2	120.2	373.5	487.7	774.0	871.8	878.8	891.8	940.0	974.2	983.7
42.5°	86.0	108.4	340.4	461.8	752.8	841.1	851.8	870.6	926.0	962.4	973.1
45°	79.0	96.6	305.1	426.4	725.7	809.4	824.6	850.5	909.5	944.8	954.2
47.5°	71.8	88.4	268.6	390.0	696.2	777.6	797.6	827.0	887.1	921.2	929.5
50°	66.0	80.1	232.0	351.1	664.4	743.4	766.9	797.6	858.8	890.6	901.2
52.5°	61.2	73.1	197.9	312.1	627.9	708.0	735.1	766.9	824.6	855.3	862.3
55°	56.6	67.2	168.5	271.0	590.2	670.3	699.7	730.4	787.0	812.9	817.6
57.5°	54.2	62.4	143.7	232.0	550.2	627.9	660.9	689.2	742.2	762.2	766.9
60°	50.7	58.9	124.9	199.1	506.6	587.8	616.1	644.4	689.2	705.6	709.2
62.5°	47.2	56.6	110.8	167.3	461.8	540.8	569.0	595.0	632.6	644.4	649.2
65°	44.8	54.2	100.1	143.7	415.9	491.2	519.5	541.9	572.6	584.3	586.7
67.5°	42.4	51.8	91.9	123.7	369.9	441.8	463.0	484.2	507.7	519.5	520.7
70°	38.9	49.4	84.8	109.5	322.8	385.2	402.9	425.3	444.2	450.0	453.6
72.5°	36.5	45.9	80.1	99.0	274.5	331.0	347.5	360.5	377.0	382.9	382.9
75°	33.0	41.2	75.4	88.4	225.0	271.0	285.1	298.0	311.0	313.4	309.9
77.5°	29.4	36.5	64.8	74.2	175.6	214.4	226.2	233.3	243.8	246.2	247.4
80°	24.8	31.8	50.7	57.7	127.3	157.8	166.1	172.0	181.5	181.5	183.7
82.5°	18.9	24.8	36.5	41.2	86.0	108.4	115.4	119.0	124.9	124.9	124.9
85°	11.8	15.3	23.5	27.1	51.8	66.0	70.7	71.8	76.6	77.7	77.7
87.5°	5.9	8.3	15.3	16.5	27.1	34.2	34.2	36.5	36.5	35.3	34.2
90°	11.0	19.8	28.5	30.7	48.2	71.6	83.3	74.0	55.5	41.6	41.6
92.5°	43.8	118.3	192.9	211.5	297.3	411.7	468.9	411.0	295.1	208.2	199.9
95°	105.2	241.5	377.8	411.9	731.4	1157.5	1370.6	1223.0	928.0	706.7	681.6
97.5°	181.9	302.1	422.5	452.5	985.4	1695.8	2051.0	1957.7	1771.3	1631.4	1583.7
100°	241.0	350.1	459.2	486.5	1077.8	1866.0	2260.2	2267.1	2280.7	2290.9	2234.0
102.5°	291.4	393.2	494.9	520.4	1120.1	1919.6	2319.4	2438.3	2675.8	2854.0	2805.4
105°	376.9	463.0	549.3	570.8	1151.5	1925.7	2312.8	2579.2	3111.9	3511.4	3485.3
107.5°	464.5	544.9	625.2	645.3	1157.3	1840.0	2181.3	2552.9	3296.0	3853.3	3859.6
110°	523.7	596.3	668.8	686.9	1148.6	1764.1	2071.8	2487.2	3317.9	3940.9	3968.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	581.8	650.9	720.0	737.3	1148.9	1697.7	1972.0	2397.1	3247.3	3885.0	3926.9
115°	669.4	733.2	797.0	813.0	1159.5	1621.6	1852.7	2262.2	3081.2	3695.5	3753.5
117.5°	756.0	813.9	871.9	886.4	1181.1	1574.0	1770.5	2140.1	2879.2	3433.6	3498.0
120°	806.4	860.9	915.5	929.1	1198.6	1557.9	1737.6	2075.3	2750.8	3257.3	3319.8
122.5°	855.6	910.7	965.7	979.5	1223.8	1549.6	1712.4	2016.5	2624.7	3080.8	3142.6
125°	931.3	981.4	1031.6	1044.1	1257.7	1542.6	1685.0	1943.3	2459.9	2847.5	2904.3
127.5°	992.7	1043.2	1093.9	1106.6	1291.7	1538.6	1662.0	1883.8	2327.4	2660.1	2708.1
130°	1025.5	1080.0	1134.6	1148.2	1316.6	1541.0	1653.2	1850.7	2245.6	2541.8	2586.2
132.5°	1059.5	1114.0	1168.6	1182.2	1336.7	1542.6	1645.6	1822.3	2175.8	2441.0	2480.7
135°	1109.8	1159.5	1209.2	1221.6	1358.6	1541.2	1632.4	1780.5	2076.6	2298.6	2332.8
137.5°	1161.4	1210.6	1259.7	1272.0	1391.4	1550.6	1630.3	1755.5	2005.7	2193.4	2221.4
140°	1204.1	1249.4	1294.6	1305.9	1411.5	1552.2	1622.6	1730.7	1946.9	2109.1	2135.2
142.5°	1236.9	1278.8	1320.7	1331.2	1428.3	1557.8	1622.6	1717.5	1907.4	2049.9	2072.4
145°	1287.3	1323.9	1360.4	1369.5	1450.3	1557.8	1611.6	1689.2	1844.6	1961.2	1978.2
147.5°	1337.7	1373.3	1408.9	1417.8	1482.4	1568.6	1611.6	1672.7	1794.9	1886.6	1900.7
150°	1370.6	1402.7	1434.9	1442.9	1499.1	1574.1	1611.6	1663.2	1766.4	1843.9	1855.3
152.5°	1404.6	1428.9	1453.3	1459.4	1510.2	1577.8	1611.6	1655.7	1743.8	1809.9	1818.5
155°	1455.0	1473.0	1491.0	1495.5	1534.2	1585.8	1611.6	1646.6	1716.8	1769.4	1775.1
157.5°	1492.2	1509.8	1527.3	1531.7	1558.3	1593.9	1611.6	1638.9	1693.5	1734.4	1738.4
160°	1517.4	1531.1	1544.7	1548.1	1569.3	1597.5	1611.6	1635.0	1681.8	1716.8	1719.1
162.5°	1542.6	1552.8	1563.1	1565.7	1580.9	1601.4	1611.6	1631.4	1670.8	1700.4	1702.6
165°	1570.0	1579.2	1588.5	1590.8	1597.7	1606.9	1611.6	1625.7	1654.0	1675.2	1677.5
167.5°	1595.2	1599.6	1604.0	1605.1	1610.9	1618.7	1622.6	1631.8	1650.3	1664.2	1665.2
170°	1611.6	1616.0	1620.4	1621.5	1621.9	1622.3	1622.6	1631.8	1650.3	1664.2	1664.2
172.5°	1620.4	1621.3	1622.3	1622.6	1622.6	1622.6	1622.6	1629.9	1644.4	1655.4	1654.5
175°	1632.4	1632.4	1632.4	1632.4	1629.2	1624.8	1622.6	1627.2	1636.5	1643.4	1643.4
177.5°	1632.4	1632.4	1632.4	1632.4	1629.9	1626.4	1624.8	1628.5	1635.7	1641.2	1640.2
180°	1632.4	1632.4	1632.4	1632.4	1632.4	1632.4	1632.4	1632.4	1632.4	1632.4	1632.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	366.3	366.3
2.5°	391.1	388.7
5°	503.0	505.4
7.5°	677.3	676.2
10°	842.3	852.9
12.5°	962.4	964.8
15°	1035.5	1040.3
17.5°	1063.8	1064.9
20°	1064.9	1062.6
22.5°	1052.0	1049.7
25°	1036.7	1035.5
27.5°	1022.5	1023.7
30°	1016.6	1020.2
32.5°	1016.6	1022.5
35°	1019.0	1024.9
37.5°	1017.9	1024.9
40°	1013.1	1021.4
42.5°	1000.2	1006.1
45°	980.2	987.2
47.5°	954.2	958.9
50°	921.2	926.0
52.5°	880.0	881.2
55°	830.5	835.3
57.5°	777.6	778.7
60°	718.6	722.1
62.5°	656.2	656.2
65°	590.2	592.6
67.5°	521.9	527.8
70°	452.4	453.6
72.5°	384.1	384.1
75°	313.4	314.5
77.5°	246.2	246.2
80°	182.6	183.7
82.5°	126.0	128.4
85°	79.0	79.0
87.5°	36.5	33.0
90°	41.6	41.6
92.5°	166.8	133.7
95°	581.3	481.0
97.5°	1392.7	1201.9
100°	2006.7	1779.3
102.5°	2610.6	2415.9
105°	3380.6	3275.9
107.5°	3884.9	3910.2
110°	4077.2	4186.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4094.4	4261.9
115°	3985.8	4218.0
117.5°	3755.6	4013.2
120°	3570.1	3820.3
122.5°	3389.5	3636.3
125°	3131.8	3359.2
127.5°	2900.0	3091.8
130°	2763.4	2940.6
132.5°	2639.4	2798.2
135°	2469.6	2606.4
137.5°	2333.4	2445.4
140°	2239.9	2344.6
142.5°	2162.5	2252.6
145°	2046.4	2114.5
147.5°	1957.2	2013.7
150°	1901.2	1946.9
152.5°	1853.1	1887.7
155°	1798.1	1820.9
157.5°	1754.4	1770.5
160°	1728.4	1737.6
162.5°	1711.3	1720.1
165°	1686.8	1696.0
167.5°	1669.1	1673.0
170°	1664.2	1664.2
172.5°	1651.2	1647.8
175°	1643.4	1643.4
177.5°	1636.3	1632.4
180°	1632.4	1632.4



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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	0.44	1.09	2.72	12.45	13.12	13.62	14.27	15.90
	3H	0.00	0.56	1.13	1.72	3.36	14.28	14.87	15.45	16.03	17.68
	4H	0.25	0.82	1.43	1.98	3.63	14.91	15.48	16.09	16.64	18.29
	6H	0.49	1.01	1.68	2.17	3.83	15.33	15.85	16.52	17.02	18.68
	8H	0.55	1.05	1.74	2.23	3.88	15.45	15.94	16.64	17.12	18.77
	12H	0.56	1.03	1.76	2.21	3.88	15.51	15.98	16.70	17.15	18.82
4H	2H	6.46	7.03	7.65	8.19	9.84	12.70	13.27	13.89	14.43	16.08
	3H	8.01	8.49	9.21	9.67	11.33	14.73	15.20	15.92	16.39	18.05
	4H	8.10	8.54	9.29	9.71	11.39	15.49	15.92	16.68	17.10	18.78
	6H	8.10	8.47	9.30	9.67	11.33	16.01	16.39	17.21	17.59	19.25
	8H	8.07	8.42	9.27	9.61	11.29	16.17	16.52	17.37	17.71	19.39
	12H	8.02	8.33	9.23	9.53	11.22	16.25	16.57	17.47	17.77	19.46
8H	4H	9.53	9.87	10.72	11.06	12.75	15.53	15.88	16.73	17.07	18.75
	6H	9.76	10.05	10.98	11.28	12.96	16.15	16.44	17.37	17.67	19.35
	8H	9.77	10.02	11.00	11.23	12.93	16.37	16.62	17.59	17.82	19.53
	12H	9.73	9.95	10.96	11.16	12.89	16.50	16.72	17.73	17.93	19.66
12H	4H	9.66	9.98	10.87	11.18	12.86	15.47	15.79	16.69	16.99	18.68
	6H	10.02	10.27	11.24	11.47	13.17	16.13	16.38	17.35	17.59	19.29
	8H	10.07	10.29	11.30	11.50	13.23	16.35	16.57	17.58	17.78	19.51