

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: P938267

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938267
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-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

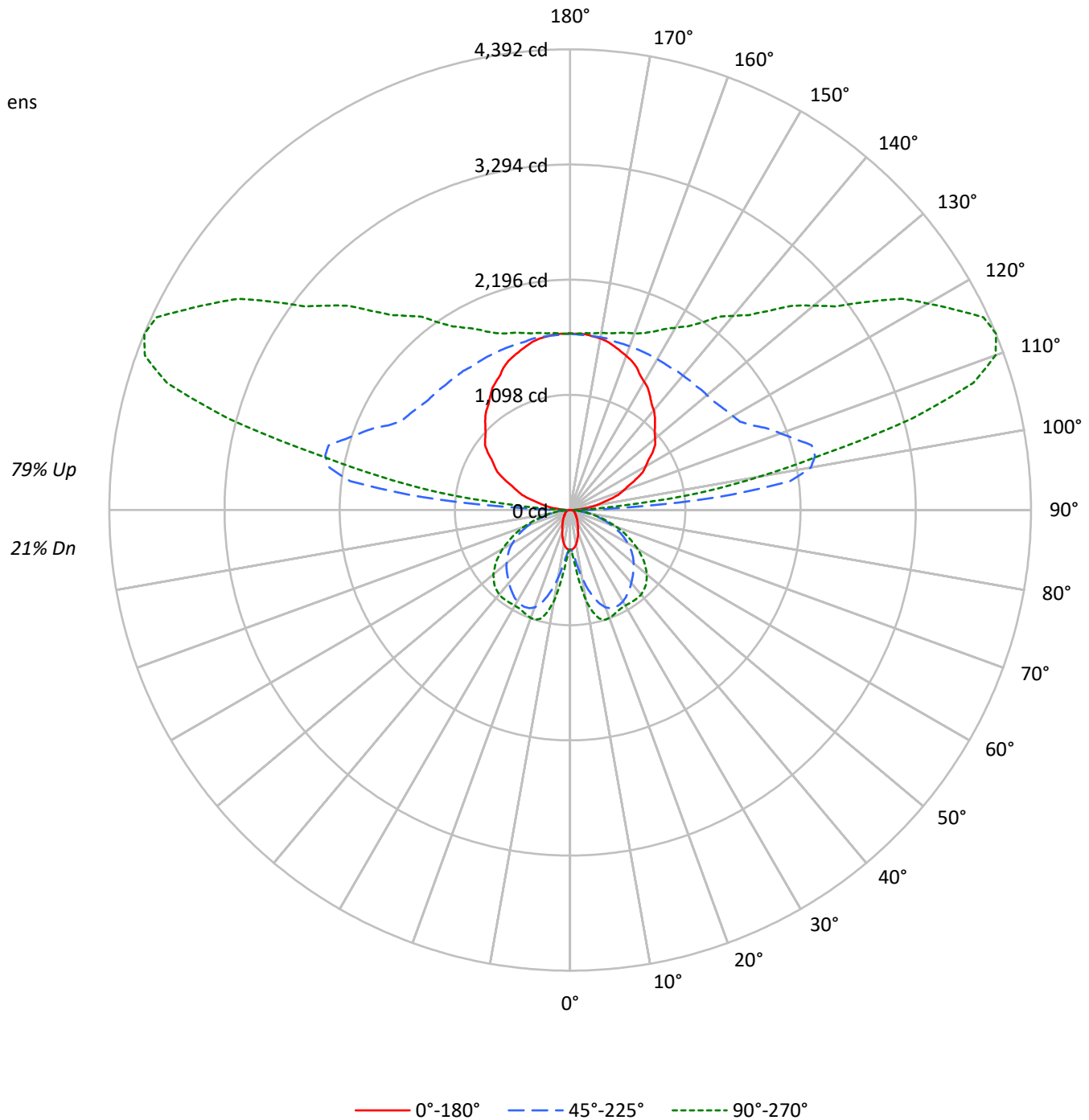
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13833.6 lumens
Efficiency: N/A
Efficacy: 124.4 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°	1751	1751	1751
5°	1712	2025	2355
10°	1552	2952	3904
15°	1319	3856	4714
20°	1074	4469	4804
25°	896	4676	4706
30°	755	4705	4698
35°	668	4628	4819
40°	582	4526	4945
45°	528	4452	4964
50°	484	4385	4882
55°	463	4286	4665
60°	474	4099	4323
65°	494	3812	3854
70°	526	3324	3256
75°	582	2711	2540
80°	636	1880	1712
85°	564	998	877

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4964 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	0.4
10°-20°	216.5	1.6
20°-30°	378.6	2.7
30°-40°	487.4	3.5
40°-50°	544.4	3.9
50°-60°	521.4	3.8
60°-70°	413.2	3.0
70°-80°	243.0	1.8
80°-90°	73.9	0.5
90°-100°	820.1	5.9
100°-110°	2156.0	15.6
110°-120°	2235.6	16.2
120°-130°	1793.2	13.0
130°-140°	1407.0	10.2
140°-150°	1079.9	7.8
150°-160°	777.7	5.6
160°-170°	475.9	3.4
170°-180°	160.8	1.2
0°-30°	643.9	4.7
0°-40°	1131.4	8.2
0°-60°	2197.2	15.9
0°-90°	2927.4	21.2
90°-120°	5211.7	37.7
90°-150°	9491.8	68.6
90°-180°	10906.0	78.8
0°-180°	13833.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	368	395	444	503	521	34
15°	276	509	857	1039	1072	77
25°	176	577	1021	1066	1067	81
35°	119	551	962	1016	1056	74
45°	81	440	850	974	1017	63
55°	58	279	721	838	861	53
65°	46	148	535	602	611	46
75°	34	91	294	323	324	36
85°	12	28	73	80	81	13
90°	11	32	86	43	43	10
95°	108	424	1412	728	496	120
105°	388	588	2384	3619	3376	412
115°	690	838	1909	3808	4347	681
125°	960	1076	1737	2934	3462	852
135°	1144	1259	1682	2369	2686	885
145°	1327	1411	1661	2021	2179	831
155°	1500	1541	1661	1824	1877	689
165°	1618	1639	1661	1726	1748	457
175°	1682	1682	1672	1694	1694	160
180°	1682	1682	1682	1682	1682	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5	377.5
2.5°	377.5	377.5	380.0	381.3	383.6	384.9	387.3	389.8	397.0	398.2	400.6
5°	367.9	372.7	388.5	394.6	411.6	434.7	444.3	460.1	493.0	502.6	508.7
7.5°	353.3	364.2	403.1	412.8	455.3	515.9	541.5	575.5	627.6	653.2	673.8
10°	330.2	353.3	422.5	445.6	514.8	607.0	654.4	701.8	780.6	815.8	829.2
12.5°	304.8	342.3	443.2	474.7	574.2	709.0	766.1	818.3	908.1	955.5	962.7
15°	275.6	326.6	462.5	508.7	637.4	794.0	857.2	921.5	1005.3	1039.2	1047.7
17.5°	250.1	314.5	480.8	529.3	685.9	870.5	934.9	988.3	1056.2	1079.3	1085.4
20°	218.5	295.0	493.0	556.0	737.0	926.3	988.3	1029.5	1075.7	1090.3	1092.7
22.5°	195.4	274.4	500.2	565.7	770.9	960.4	1012.5	1045.4	1076.9	1081.8	1082.9
25°	176.1	251.3	499.0	576.7	800.1	981.0	1021.0	1045.4	1063.6	1066.0	1066.0
27.5°	157.9	225.8	494.1	579.1	822.0	985.8	1017.4	1034.4	1042.9	1047.7	1047.7
30°	142.0	201.6	482.0	574.2	831.7	981.0	1006.4	1015.0	1023.5	1030.8	1034.4
32.5°	129.9	178.5	463.8	564.5	832.8	968.8	987.1	991.9	1004.0	1021.0	1027.1
35°	118.9	155.4	443.2	551.2	825.6	949.4	961.6	966.4	990.7	1016.2	1024.6
37.5°	108.1	138.4	416.5	528.2	814.6	926.3	934.9	943.4	981.0	1011.3	1021.0
40°	97.1	123.8	384.9	502.6	797.6	898.5	905.7	919.1	968.8	1004.0	1013.8
42.5°	88.6	111.7	350.8	475.9	775.8	866.9	877.8	897.2	954.3	991.9	1002.8
45°	81.4	99.6	314.5	439.5	747.8	834.1	849.9	876.6	937.3	973.7	983.4
47.5°	74.0	91.1	276.8	401.9	717.5	801.3	822.0	852.3	914.2	949.4	957.9
50°	68.0	82.6	239.1	361.8	684.8	766.1	790.4	822.0	885.1	917.8	928.8
52.5°	63.1	75.3	203.9	321.7	647.1	729.7	757.6	790.4	849.9	881.4	888.7
55°	58.3	69.2	173.6	279.2	608.3	690.8	721.1	752.7	811.0	837.7	842.6
57.5°	55.8	64.4	148.1	239.1	567.0	647.1	681.1	710.3	764.9	785.5	790.4
60°	52.2	60.7	128.7	205.2	522.1	605.8	635.0	664.1	710.3	727.2	730.9
62.5°	48.6	58.3	114.1	172.4	475.9	557.3	586.4	613.2	652.0	664.1	669.0
65°	46.2	55.8	103.2	148.1	428.6	506.3	535.4	558.5	590.1	602.2	604.6
67.5°	43.7	53.4	94.7	127.4	381.3	455.3	477.1	499.0	523.3	535.4	536.6
70°	40.1	51.0	87.4	112.9	332.6	397.0	415.2	438.3	457.7	463.8	467.4
72.5°	37.7	47.3	82.6	102.0	282.9	341.2	358.2	371.5	388.5	394.6	394.6
75°	34.0	42.5	77.7	91.1	231.9	279.2	293.8	307.1	320.5	323.0	319.3
77.5°	30.3	37.7	66.8	76.5	180.9	220.9	233.1	240.4	251.3	253.7	255.0
80°	25.5	32.8	52.2	59.5	131.2	162.7	171.2	177.2	187.0	187.0	189.4
82.5°	19.5	25.5	37.7	42.5	88.6	111.7	118.9	122.6	128.7	128.7	128.7
85°	12.1	15.7	24.3	27.9	53.4	68.0	72.9	74.0	78.9	80.1	80.1
87.5°	6.1	8.5	15.7	17.0	27.9	35.2	35.2	37.7	37.7	36.4	35.2
90°	11.3	20.4	29.3	31.6	49.7	73.8	85.8	76.3	57.2	42.9	42.9
92.5°	45.2	121.9	198.8	218.0	306.4	424.3	483.3	423.5	304.1	214.5	206.0
95°	108.4	248.9	389.4	424.5	753.8	1192.9	1412.5	1260.4	956.4	728.3	702.4
97.5°	187.5	311.4	435.4	466.3	1015.5	1747.7	2113.7	2017.6	1825.4	1681.2	1632.1
100°	248.4	360.8	473.2	501.4	1110.7	1923.1	2329.3	2336.4	2350.4	2360.9	2302.4
102.5°	300.3	405.2	510.1	536.3	1154.4	1978.3	2390.3	2512.8	2757.7	2941.3	2891.2
105°	388.4	477.2	566.1	588.3	1186.7	1984.6	2383.6	2658.1	3207.1	3618.8	3591.9
107.5°	478.7	561.6	644.3	665.0	1192.7	1896.3	2248.1	2630.9	3396.8	3971.1	3977.6
110°	539.7	614.5	689.3	707.9	1183.7	1818.0	2135.2	2563.2	3419.3	4061.5	4089.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	599.6	670.8	742.1	759.9	1184.0	1749.6	2032.4	2470.5	3346.7	4003.8	4047.0
115°	689.9	755.6	821.3	837.8	1195.0	1671.2	1909.3	2331.3	3175.4	3808.5	3868.3
117.5°	779.1	838.8	898.6	913.5	1217.2	1622.1	1824.6	2205.5	2967.3	3538.6	3605.0
120°	831.0	887.2	943.4	957.5	1235.3	1605.6	1790.8	2138.8	2834.9	3356.9	3421.3
122.5°	881.8	938.6	995.2	1009.4	1261.3	1597.0	1764.8	2078.2	2705.0	3175.0	3238.7
125°	959.7	1011.4	1063.1	1076.1	1296.2	1589.7	1736.6	2002.8	2535.2	2934.5	2993.1
127.5°	1023.0	1075.2	1127.4	1140.4	1331.2	1585.7	1712.8	1941.4	2398.6	2741.5	2790.9
130°	1056.9	1113.1	1169.3	1183.3	1356.8	1588.1	1703.8	1907.3	2314.3	2619.5	2665.2
132.5°	1091.9	1148.1	1204.3	1218.3	1377.6	1589.8	1695.9	1878.0	2242.4	2515.6	2556.5
135°	1143.8	1195.0	1246.2	1259.0	1400.1	1588.3	1682.3	1834.9	2140.1	2368.9	2404.1
137.5°	1196.9	1247.6	1298.2	1310.9	1434.0	1598.1	1680.2	1809.1	2067.0	2260.5	2289.3
140°	1240.9	1287.6	1334.2	1345.9	1454.7	1599.7	1672.2	1783.6	2006.5	2173.6	2200.5
142.5°	1274.7	1317.9	1361.1	1371.9	1472.0	1605.5	1672.2	1770.0	1965.7	2112.6	2135.7
145°	1326.7	1364.3	1402.0	1411.4	1494.6	1605.5	1660.9	1740.9	1901.0	2021.1	2038.7
147.5°	1378.7	1415.3	1452.0	1461.1	1527.7	1616.5	1660.9	1723.9	1849.8	1944.3	1958.9
150°	1412.5	1445.6	1478.8	1487.0	1544.9	1622.2	1660.9	1714.1	1820.5	1900.3	1912.1
152.5°	1447.5	1472.6	1497.8	1504.0	1556.3	1626.0	1660.9	1706.3	1797.1	1865.3	1874.1
155°	1499.5	1518.0	1536.6	1541.2	1581.1	1634.3	1660.9	1697.0	1769.3	1823.5	1829.4
157.5°	1537.9	1556.0	1574.0	1578.5	1605.9	1642.6	1660.9	1689.0	1745.2	1787.4	1791.6
160°	1563.8	1577.9	1591.9	1595.4	1617.3	1646.3	1660.9	1685.0	1733.2	1769.3	1771.7
162.5°	1589.8	1600.3	1610.9	1613.5	1629.3	1650.4	1660.9	1681.2	1721.9	1752.4	1754.7
165°	1618.0	1627.5	1637.1	1639.4	1646.6	1656.1	1660.9	1675.5	1704.6	1726.4	1728.8
167.5°	1644.0	1648.5	1653.0	1654.2	1660.2	1668.2	1672.2	1681.7	1700.8	1715.1	1716.1
170°	1660.9	1665.4	1669.9	1671.1	1671.5	1671.9	1672.2	1681.7	1700.8	1715.1	1715.1
172.5°	1669.9	1670.9	1671.9	1672.2	1672.2	1672.2	1672.2	1679.7	1694.7	1706.0	1705.1
175°	1682.3	1682.3	1682.3	1682.3	1679.0	1674.5	1672.2	1677.0	1686.5	1693.6	1693.6
177.5°	1682.3	1682.3	1682.3	1682.3	1679.7	1676.2	1674.5	1678.3	1685.8	1691.4	1690.4
180°	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3	1682.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	377.5	377.5
2.5°	403.1	400.6
5°	518.4	520.8
7.5°	698.1	696.9
10°	868.0	879.0
12.5°	991.9	994.3
15°	1067.2	1072.1
17.5°	1096.3	1097.5
20°	1097.5	1095.1
22.5°	1084.2	1081.8
25°	1068.4	1067.2
27.5°	1053.8	1055.1
30°	1047.7	1051.4
32.5°	1047.7	1053.8
35°	1050.2	1056.2
37.5°	1049.0	1056.2
40°	1044.1	1052.6
42.5°	1030.8	1036.9
45°	1010.2	1017.4
47.5°	983.4	988.3
50°	949.4	954.3
52.5°	906.9	908.1
55°	855.9	860.8
57.5°	801.3	802.5
60°	740.6	744.2
62.5°	676.2	676.2
65°	608.3	610.7
67.5°	537.8	543.9
70°	466.2	467.4
72.5°	395.8	395.8
75°	323.0	324.1
77.5°	253.7	253.7
80°	188.2	189.4
82.5°	129.9	132.3
85°	81.4	81.4
87.5°	37.7	34.0
90°	42.9	42.9
92.5°	171.9	137.8
95°	599.0	495.7
97.5°	1435.3	1238.6
100°	2068.0	1833.7
102.5°	2690.4	2489.7
105°	3484.0	3376.1
107.5°	4003.7	4029.8
110°	4201.9	4314.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4219.6	4392.2
115°	4107.7	4347.0
117.5°	3870.5	4136.0
120°	3679.3	3937.2
122.5°	3493.1	3747.5
125°	3227.5	3461.9
127.5°	2988.7	3186.3
130°	2847.9	3030.6
132.5°	2720.1	2883.8
135°	2545.1	2686.2
137.5°	2404.7	2520.1
140°	2308.4	2416.3
142.5°	2228.6	2321.5
145°	2108.9	2179.2
147.5°	2017.1	2075.3
150°	1959.3	2006.5
152.5°	1909.8	1945.5
155°	1853.0	1876.6
157.5°	1808.1	1824.6
160°	1781.3	1790.8
162.5°	1763.6	1772.7
165°	1738.4	1747.9
167.5°	1720.2	1724.2
170°	1715.1	1715.1
172.5°	1701.7	1698.2
175°	1693.6	1693.6
177.5°	1686.3	1682.3
180°	1682.3	1682.3



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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	0.00	0.04	0.54	1.20	2.83	12.56	13.22	13.72	14.37	16.00
	3H	0.07	0.66	1.24	1.83	3.47	14.38	14.98	15.55	16.14	17.78
	4H	0.36	0.92	1.54	2.08	3.73	15.02	15.58	16.20	16.74	18.39
	6H	0.60	1.12	1.79	2.28	3.94	15.44	15.96	16.63	17.12	18.78
	8H	0.66	1.16	1.85	2.33	3.98	15.55	16.05	16.74	17.23	18.88
	12H	0.67	1.14	1.86	2.31	3.99	15.61	16.08	16.81	17.26	18.93
4H	2H	6.57	7.13	7.76	8.30	9.94	12.81	13.37	14.00	14.53	16.18
	3H	8.12	8.59	9.31	9.78	11.44	14.83	15.31	16.03	16.49	18.15
	4H	8.20	8.64	9.40	9.81	11.49	15.59	16.03	16.79	17.20	18.88
	6H	8.20	8.58	9.40	9.77	11.44	16.12	16.49	17.32	17.69	19.36
	8H	8.17	8.52	9.37	9.71	11.40	16.28	16.62	17.47	17.81	19.50
	12H	8.12	8.44	9.33	9.64	11.33	16.36	16.68	17.57	17.87	19.56
8H	4H	9.63	9.98	10.83	11.17	12.85	15.63	15.98	16.83	17.17	18.86
	6H	9.86	10.15	11.08	11.38	13.06	16.25	16.54	17.47	17.77	19.45
	8H	9.88	10.13	11.10	11.34	13.04	16.47	16.72	17.69	17.93	19.63
	12H	9.84	10.06	11.06	11.26	12.99	16.61	16.83	17.83	18.03	19.76
12H	4H	9.76	10.08	10.98	11.28	12.97	15.58	15.89	16.79	17.09	18.78
	6H	10.12	10.37	11.34	11.58	13.28	16.23	16.49	17.46	17.69	19.39
	8H	10.18	10.40	11.41	11.60	13.34	16.45	16.67	17.68	17.88	19.61