

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: P936928

Luminaire Tested: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936928
REPORT IS A COMBINATION OF REPORTS P933464 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

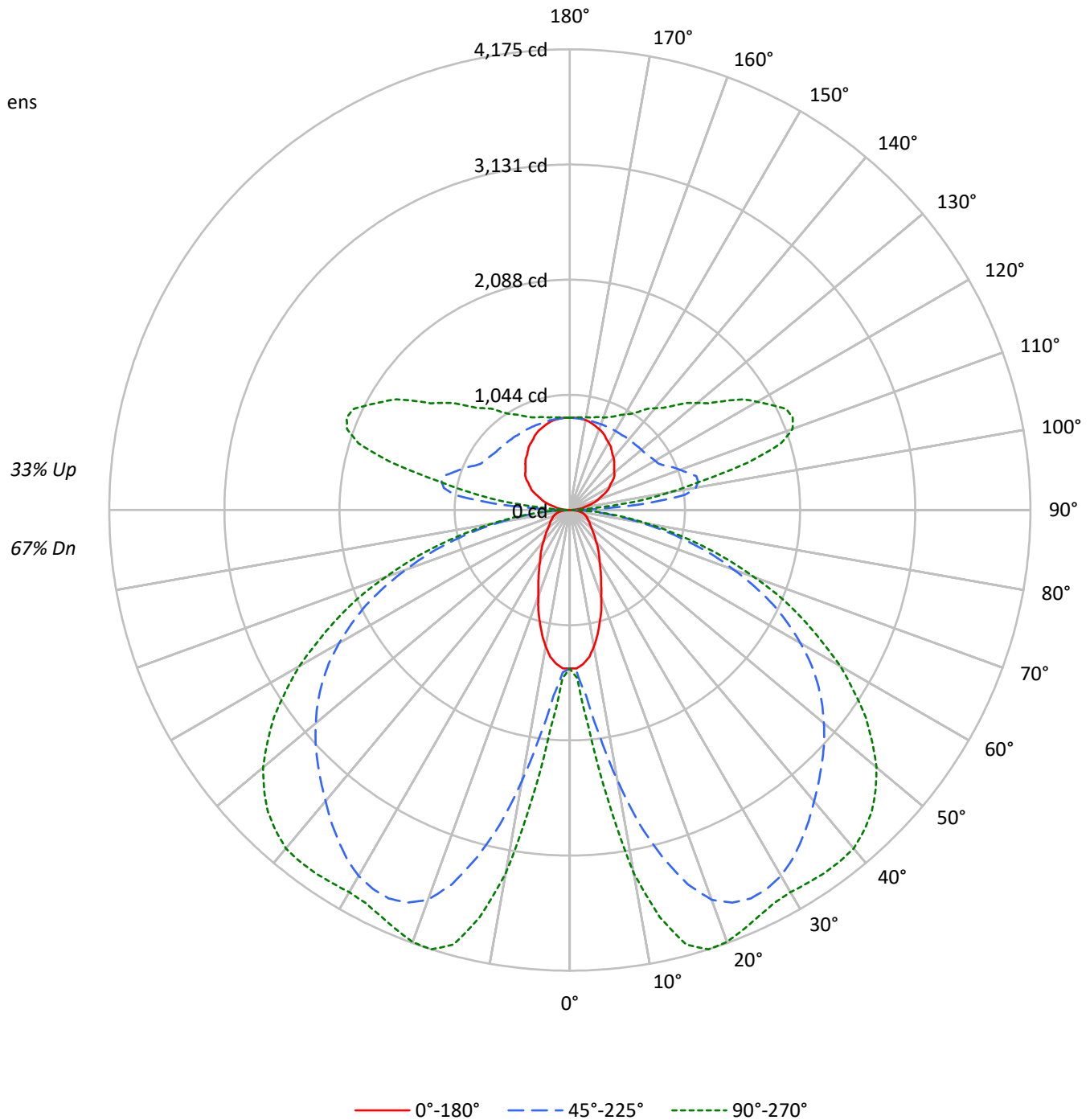
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16546.3 lumens
Efficiency: N/A
Efficacy: 98.5 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): 168
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4442	4442	4442
5°	4341	5136	5971
10°	3939	7488	9899
15°	3349	9785	11953
20°	2728	11342	12182
25°	2276	11872	11934
30°	1920	11950	11912
35°	1699	11755	12220
40°	1481	11500	12538
45°	1342	11315	12587
50°	1232	11148	12379
55°	1181	10904	11830
60°	1211	10430	10964
65°	1262	9707	9773
70°	1347	8471	8256
75°	1499	6913	6443
80°	1650	4800	4342
85°	1497	2551	2222

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12587 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.8	1.1
10°-20°	823.4	5.0
20°-30°	1440.2	8.7
30°-40°	1854.0	11.2
40°-50°	2070.8	12.5
50°-60°	1983.4	12.0
60°-70°	1571.8	9.5
70°-80°	924.3	5.6
80°-90°	260.0	1.6
90°-100°	408.5	2.5
100°-110°	1074.0	6.5
110°-120°	1113.6	6.7
120°-130°	893.3	5.4
130°-140°	700.9	4.2
140°-150°	538.0	3.3
150°-160°	387.4	2.3
160°-170°	237.0	1.4
170°-180°	80.1	0.5
0°-30°	2449.3	14.8
0°-40°	4303.3	26.0
0°-60°	8357.5	50.5
0°-90°	11113.5	67.2
90°-120°	2596.1	15.7
90°-150°	4728.2	28.6
90°-180°	5433.0	32.8
0°-180°	16546.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1436	1436	1436	1436	1436	
5°	1399	1501	1690	1912	1981	129
15°	1048	1935	3260	3953	4078	292
25°	670	2194	3884	4054	4059	308
35°	452	2096	3657	3865	4018	283
45°	309	1672	3233	3704	3870	239
55°	222	1062	2743	3186	3274	202
65°	176	563	2036	2290	2323	174
75°	129	346	1118	1228	1233	135
85°	46	106	277	305	309	49
90°	6	16	43	21	21	8
95°	54	212	704	363	247	60
105°	194	293	1187	1803	1682	205
115°	344	417	951	1897	2166	339
125°	478	536	865	1462	1724	424
135°	570	627	838	1180	1338	441
145°	661	703	827	1007	1086	414
155°	747	768	827	908	935	343
165°	806	817	827	860	871	227
175°	838	838	833	844	844	80
180°	838	838	838	838	838	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2	1436.2
2.5°	1436.2	1436.2	1445.4	1450.1	1459.2	1463.9	1473.2	1482.3	1510.1	1514.7	1523.9
5°	1399.2	1417.7	1477.7	1500.8	1565.5	1653.3	1690.2	1750.2	1874.9	1911.9	1934.9
7.5°	1343.8	1385.4	1533.2	1570.1	1731.8	1962.6	2059.6	2189.0	2387.5	2484.5	2563.0
10°	1256.1	1343.8	1607.1	1694.7	1958.0	2308.9	2489.0	2669.1	2969.3	3103.2	3154.1
12.5°	1159.2	1302.2	1685.6	1805.6	2184.3	2696.9	2913.9	3112.5	3454.3	3634.4	3662.0
15°	1048.3	1242.2	1759.4	1934.9	2424.5	3020.2	3260.2	3505.0	3823.7	3953.0	3985.3
17.5°	951.3	1196.1	1828.7	2013.4	2609.1	3311.1	3555.9	3759.0	4017.6	4105.4	4128.5
20°	831.2	1122.1	1874.9	2115.0	2803.1	3523.5	3759.0	3916.0	4091.5	4146.9	4156.1
22.5°	743.4	1043.6	1902.6	2151.9	2932.4	3652.8	3851.4	3976.0	4096.1	4114.6	4119.2
25°	669.6	955.9	1898.0	2193.5	3043.2	3731.3	3883.7	3976.0	4045.3	4054.5	4054.5
27.5°	600.4	859.0	1879.5	2202.8	3126.3	3749.8	3869.9	3934.5	3966.8	3985.3	3985.3
30°	540.3	766.6	1833.3	2184.3	3163.3	3731.3	3828.3	3860.6	3893.0	3920.6	3934.5
32.5°	494.1	678.9	1764.1	2147.4	3167.9	3685.1	3754.4	3772.9	3819.0	3883.7	3906.8
35°	452.5	591.1	1685.6	2096.5	3140.2	3611.3	3657.4	3675.9	3768.3	3865.2	3897.5
37.5°	411.0	526.4	1584.0	2008.8	3098.7	3523.5	3555.9	3588.2	3731.3	3846.8	3883.7
40°	369.4	471.0	1463.9	1911.9	3034.0	3417.3	3445.0	3495.8	3685.1	3819.0	3856.0
42.5°	337.1	424.9	1334.6	1810.3	2950.9	3297.3	3338.8	3412.7	3629.7	3772.9	3814.5
45°	309.4	378.7	1196.1	1671.7	2844.6	3172.5	3232.6	3334.2	3565.0	3703.6	3740.5
47.5°	281.7	346.4	1052.9	1528.6	2729.2	3047.8	3126.3	3241.8	3477.4	3611.3	3643.6
50°	258.6	314.0	909.7	1376.2	2604.6	2913.9	3006.3	3126.3	3366.5	3491.2	3532.8
52.5°	240.1	286.4	775.8	1223.7	2461.4	2775.4	2881.6	3006.3	3232.6	3352.6	3380.3
55°	221.7	263.2	660.4	1062.1	2313.6	2627.6	2743.1	2863.2	3084.8	3186.4	3204.8
57.5°	212.4	244.8	563.4	909.7	2156.6	2461.4	2590.6	2701.5	2909.3	2987.8	3006.3
60°	198.6	230.9	489.5	780.5	1985.7	2304.4	2415.2	2526.1	2701.5	2766.1	2780.0
62.5°	184.7	221.7	434.1	655.8	1810.3	2119.6	2230.4	2332.0	2479.9	2526.1	2544.5
65°	175.5	212.4	392.5	563.4	1630.2	1925.7	2036.5	2124.3	2244.3	2290.5	2299.7
67.5°	166.3	203.2	360.2	484.9	1450.1	1731.8	1814.8	1898.0	1990.4	2036.5	2041.1
70°	152.4	193.9	332.5	429.4	1265.3	1510.1	1579.3	1667.1	1741.0	1764.1	1777.9
72.5°	143.2	180.1	314.0	387.9	1076.0	1297.7	1362.3	1413.1	1477.7	1500.8	1500.8
75°	129.3	161.6	295.5	346.4	882.0	1062.1	1117.6	1168.3	1219.1	1228.4	1214.5
77.5°	115.4	143.2	254.0	290.9	688.0	840.5	886.6	914.4	955.9	965.1	969.8
80°	97.0	124.7	198.6	226.3	498.8	618.8	651.1	674.2	711.2	711.2	720.4
82.5°	73.9	97.0	143.2	161.6	337.1	424.9	452.5	466.4	489.5	489.5	489.5
85°	46.2	60.0	92.3	106.2	203.2	258.6	277.1	281.7	300.2	304.8	304.8
87.5°	23.1	32.3	60.0	64.7	106.2	133.9	133.9	143.2	143.2	138.5	133.9
90°	5.6	10.1	14.6	15.7	24.7	36.7	42.8	38.0	28.5	21.4	21.4
92.5°	22.5	60.7	99.0	108.5	152.5	211.3	240.7	210.9	151.5	106.9	102.6
95°	54.0	124.0	194.0	211.5	375.5	594.3	703.6	627.8	476.4	362.8	349.8
97.5°	93.3	155.1	216.9	232.3	505.8	870.5	1052.9	1005.1	909.3	837.5	813.0
100°	123.7	179.7	235.7	249.7	553.2	957.9	1160.3	1163.8	1170.8	1176.1	1146.9
102.5°	149.6	201.8	254.1	267.2	575.0	985.5	1190.7	1251.7	1373.6	1465.2	1440.1
105°	193.5	237.7	281.9	293.0	591.1	988.6	1187.3	1324.1	1597.5	1802.6	1789.2
107.5°	238.5	279.7	321.0	331.3	594.2	944.7	1119.9	1310.6	1692.1	1978.2	1981.5
110°	268.9	306.1	343.4	352.7	589.6	905.6	1063.6	1276.9	1703.3	2023.1	2037.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	298.6	334.1	369.6	378.5	589.8	871.5	1012.4	1230.6	1667.1	1994.5	2015.9
115°	343.7	376.4	409.2	417.3	595.3	832.5	951.1	1161.3	1581.8	1897.1	1927.0
117.5°	388.1	417.8	447.5	455.0	606.3	808.0	908.9	1098.7	1478.1	1762.7	1795.7
120°	414.0	442.0	469.9	476.9	615.3	799.8	892.1	1065.5	1412.1	1672.2	1704.3
122.5°	439.3	467.6	495.8	502.8	628.3	795.5	879.1	1035.2	1347.4	1581.6	1613.2
125°	478.1	503.8	529.6	536.0	645.8	791.9	865.1	997.7	1262.8	1461.8	1491.0
127.5°	509.6	535.6	561.6	568.1	663.1	789.8	853.2	967.1	1194.8	1365.6	1390.3
130°	526.5	554.5	582.4	589.4	675.9	791.1	848.8	950.1	1152.9	1304.9	1327.6
132.5°	543.9	571.9	599.9	606.9	686.2	791.9	844.8	935.6	1117.0	1253.1	1273.5
135°	569.8	595.3	620.7	627.1	697.4	791.2	838.0	914.1	1066.1	1180.1	1197.6
137.5°	596.2	621.5	646.8	653.0	714.3	796.1	837.0	901.2	1029.7	1126.0	1140.4
140°	618.1	641.4	664.6	670.4	724.6	796.8	833.0	888.4	999.5	1082.7	1096.2
142.5°	635.0	656.5	678.0	683.4	733.3	799.8	833.0	881.7	979.2	1052.4	1063.9
145°	660.9	679.6	698.3	703.1	744.5	799.8	827.4	867.2	947.0	1006.8	1015.5
147.5°	686.8	705.0	723.3	727.8	761.0	805.3	827.4	858.8	921.6	968.6	975.9
150°	703.6	720.1	736.6	740.7	769.6	808.1	827.4	853.9	906.8	946.6	952.5
152.5°	721.1	733.5	746.1	749.2	775.3	810.0	827.4	850.1	895.3	929.2	933.7
155°	746.9	756.2	765.5	767.7	787.7	814.1	827.4	845.4	881.3	908.4	911.3
157.5°	766.1	775.1	784.0	786.3	800.0	818.3	827.4	841.4	869.3	890.4	892.4
160°	779.0	786.0	793.0	794.7	805.7	820.1	827.4	839.4	863.3	881.3	882.5
162.5°	791.9	797.2	802.5	803.8	811.7	822.1	827.4	837.5	857.7	872.9	874.0
165°	806.0	810.8	815.5	816.7	820.2	825.0	827.4	834.7	849.1	860.0	861.2
167.5°	818.9	821.1	823.4	823.9	827.0	831.0	833.0	837.7	847.2	854.3	854.9
170°	827.4	829.6	831.9	832.4	832.6	832.9	833.0	837.7	847.2	854.3	854.3
172.5°	831.9	832.3	832.9	833.0	833.0	833.0	833.0	836.7	844.2	849.9	849.4
175°	838.0	838.0	838.0	838.0	836.3	834.0	833.0	835.3	840.1	843.7	843.7
177.5°	838.0	838.0	838.0	838.0	836.8	835.0	834.1	836.0	839.8	842.6	842.1
180°	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1436.2	1436.2
2.5°	1533.2	1523.9
5°	1971.9	1981.1
7.5°	2655.3	2650.7
10°	3301.8	3343.4
12.5°	3772.9	3782.1
15°	4059.2	4077.6
17.5°	4170.0	4174.6
20°	4174.6	4165.4
22.5°	4123.8	4114.6
25°	4063.8	4059.2
27.5°	4008.4	4013.0
30°	3985.3	3999.1
32.5°	3985.3	4008.4
35°	3994.5	4017.6
37.5°	3989.9	4017.6
40°	3971.5	4003.8
42.5°	3920.6	3943.7
45°	3842.1	3869.9
47.5°	3740.5	3759.0
50°	3611.3	3629.7
52.5°	3449.6	3454.3
55°	3255.7	3274.1
57.5°	3047.8	3052.5
60°	2817.0	2830.8
62.5°	2572.2	2572.2
65°	2313.6	2322.8
67.5°	2045.8	2068.9
70°	1773.3	1777.9
72.5°	1505.4	1505.4
75°	1228.4	1233.0
77.5°	965.1	965.1
80°	715.8	720.4
82.5°	494.1	503.4
85°	309.4	309.4
87.5°	143.2	129.3
90°	21.4	21.4
92.5°	85.6	68.6
95°	298.4	246.9
97.5°	715.0	617.0
100°	1030.2	913.5
102.5°	1340.2	1240.2
105°	1735.5	1681.7
107.5°	1994.4	2007.4
110°	2093.1	2149.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2102.0	2187.9
115°	2046.2	2165.5
117.5°	1928.0	2060.2
120°	1832.8	1961.3
122.5°	1740.0	1866.8
125°	1607.7	1724.5
127.5°	1488.7	1587.2
130°	1418.7	1509.6
132.5°	1355.0	1436.5
135°	1267.9	1338.1
137.5°	1197.9	1255.4
140°	1149.9	1203.6
142.5°	1110.2	1156.4
145°	1050.5	1085.6
147.5°	1004.8	1033.8
150°	975.9	999.5
152.5°	951.4	969.1
155°	923.1	934.8
157.5°	900.6	908.9
160°	887.4	892.1
162.5°	878.5	883.1
165°	866.0	870.7
167.5°	856.9	858.9
170°	854.3	854.3
172.5°	847.7	846.0
175°	843.7	843.7
177.5°	840.0	838.0
180°	838.0	838.0



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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	7.62	8.71	8.40	9.53	10.53	20.81	21.91	21.60	22.72	23.72
	3H	8.34	9.33	9.14	10.15	11.18	22.67	23.66	23.47	24.48	25.51
	4H	8.65	9.58	9.46	10.42	11.46	23.33	24.27	24.15	25.10	26.14
	6H	8.91	9.78	9.74	10.62	11.67	23.78	24.64	24.61	25.48	26.54
	8H	8.99	9.81	9.82	10.67	11.72	23.91	24.73	24.75	25.59	26.65
	12H	9.01	9.80	9.86	10.65	11.73	23.99	24.77	24.83	25.63	26.71
4H	2H	14.87	15.80	15.69	16.64	17.68	21.11	22.05	21.93	22.88	23.92
	3H	16.46	17.24	17.29	18.11	19.16	23.18	23.97	24.02	24.83	25.89
	4H	16.56	17.28	17.41	18.14	19.22	23.96	24.68	24.81	25.54	26.63
	6H	16.59	17.21	17.45	18.10	19.18	24.52	25.14	25.38	26.03	27.12
	8H	16.57	17.15	17.44	18.03	19.13	24.69	25.27	25.56	26.16	27.26
	12H	16.54	17.06	17.43	17.97	19.07	24.80	25.33	25.69	26.23	27.33
8H	4H	18.03	18.61	18.90	19.50	20.59	24.04	24.63	24.91	25.51	26.61
	6H	18.28	18.77	19.18	19.69	20.79	24.69	25.17	25.58	26.10	27.20
	8H	18.31	18.73	19.21	19.65	20.77	24.92	25.34	25.82	26.26	27.38
	12H	18.29	18.66	19.19	19.57	20.74	25.08	25.45	25.98	26.36	27.53
12H	4H	18.19	18.71	19.07	19.61	20.72	24.01	24.53	24.90	25.44	26.54
	6H	18.55	18.98	19.45	19.89	21.01	24.68	25.11	25.58	26.02	27.14
	8H	18.63	19.01	19.54	19.92	21.08	24.92	25.30	25.83	26.21	27.38