

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: P936927

Luminaire Tested: SQ4-FB-050U-125D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936927
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-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

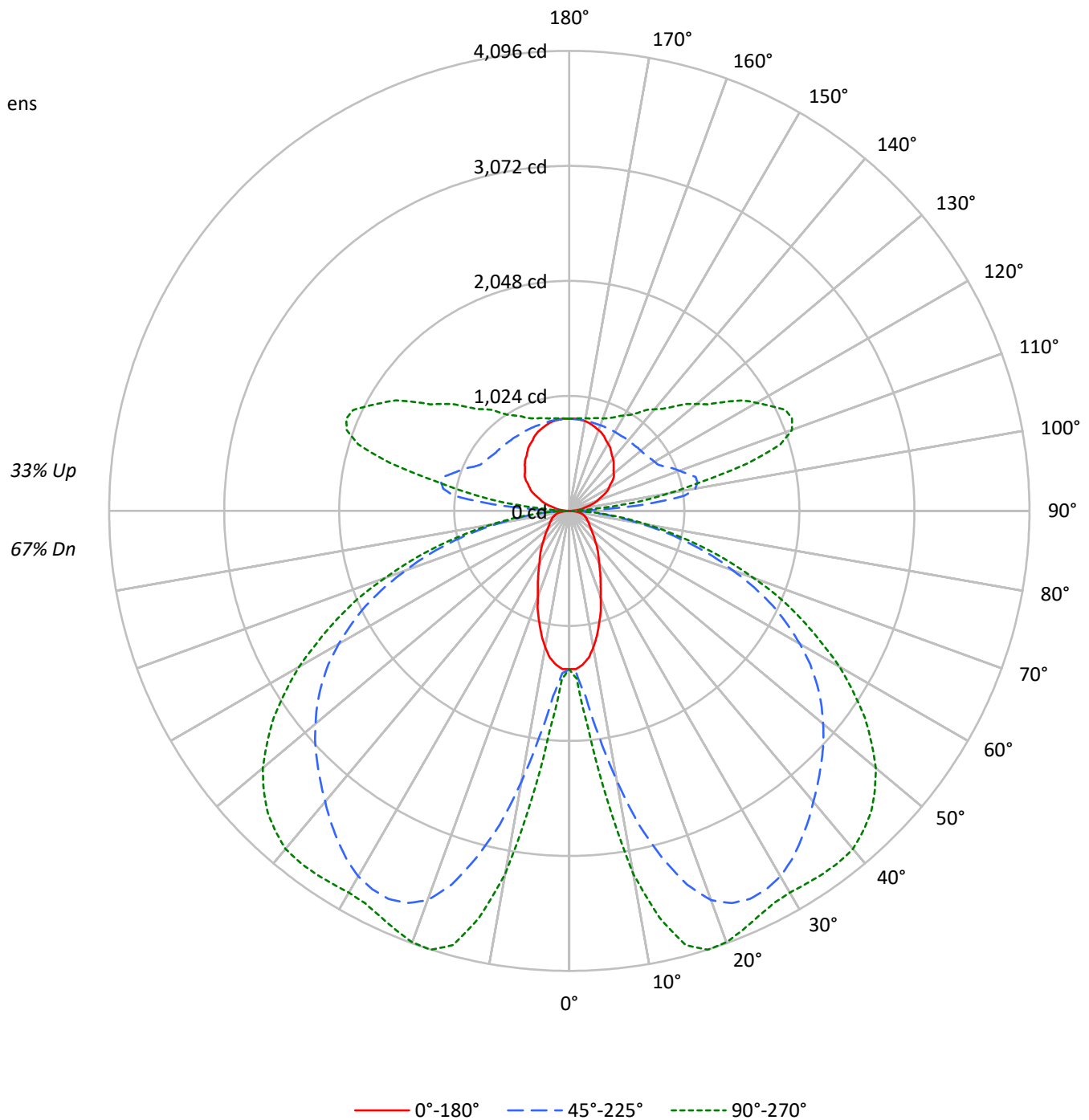
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16236.7 lumens
Efficiency: N/A
Efficacy: 96.6 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 (Ain): 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°	4359	4359	4359
5°	4260	5040	5859
10°	3866	7348	9714
15°	3287	9602	11729
20°	2677	11130	11954
25°	2234	11650	11711
30°	1885	11727	11689
35°	1667	11535	11991
40°	1454	11285	12304
45°	1317	11103	12352
50°	1209	10940	12147
55°	1159	10700	11609
60°	1189	10234	10758
65°	1238	9525	9591
70°	1322	8312	8102
75°	1470	6784	6323
80°	1619	4710	4261
85°	1468	2504	2180

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12352 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.3	1.1
10°-20°	808.0	5.0
20°-30°	1413.3	8.7
30°-40°	1819.3	11.2
40°-50°	2032.1	12.5
50°-60°	1946.3	12.0
60°-70°	1542.4	9.5
70°-80°	907.0	5.6
80°-90°	255.1	1.6
90°-100°	400.9	2.5
100°-110°	1053.9	6.5
110°-120°	1092.8	6.7
120°-130°	876.5	5.4
130°-140°	687.8	4.2
140°-150°	527.9	3.3
150°-160°	380.2	2.3
160°-170°	232.6	1.4
170°-180°	78.6	0.5
0°-30°	2403.5	14.8
0°-40°	4222.8	26.0
0°-60°	8201.1	50.5
0°-90°	10905.6	67.2
90°-120°	2547.5	15.7
90°-150°	4639.7	28.6
90°-180°	5331.0	32.8
0°-180°	16236.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1409	1409	1409	1409	1409	
5°	1373	1473	1659	1876	1944	127
15°	1029	1899	3199	3879	4001	286
25°	657	2152	3811	3979	3983	303
35°	444	2057	3589	3793	3942	277
45°	304	1640	3172	3634	3798	235
55°	218	1042	2692	3127	3213	198
65°	172	553	1998	2248	2279	171
75°	127	340	1097	1205	1210	133
85°	45	104	272	299	304	48
90°	6	15	42	21	21	8
95°	53	208	690	356	242	59
105°	190	288	1165	1769	1650	201
115°	337	410	933	1862	2125	333
125°	469	526	849	1434	1692	416
135°	559	615	822	1158	1313	433
145°	648	690	812	988	1065	406
155°	733	753	812	891	917	337
165°	791	801	812	844	854	223
175°	822	822	817	828	828	78
180°	822	822	822	822	822	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4
2.5°	1409.4	1409.4	1418.4	1422.9	1431.9	1436.5	1445.6	1454.6	1481.8	1486.4	1495.4
5°	1373.0	1391.1	1450.1	1472.7	1536.2	1622.3	1658.6	1717.5	1839.8	1876.1	1898.7
7.5°	1318.7	1359.5	1504.5	1540.8	1699.4	1925.9	2021.1	2148.0	2342.9	2438.0	2515.0
10°	1232.6	1318.7	1577.0	1663.0	1921.4	2265.7	2442.5	2619.2	2913.8	3045.2	3095.1
12.5°	1137.5	1277.9	1654.0	1771.9	2143.4	2646.4	2859.4	3054.3	3389.6	3566.4	3593.5
15°	1028.7	1219.0	1726.5	1898.7	2379.1	2963.7	3199.2	3439.4	3752.1	3879.1	3910.7
17.5°	933.5	1173.7	1794.5	1975.7	2560.3	3249.1	3489.3	3688.7	3942.4	4028.6	4051.2
20°	815.7	1101.1	1839.8	2075.4	2750.7	3457.6	3688.7	3842.7	4015.0	4069.4	4078.4
22.5°	729.5	1024.1	1867.0	2111.7	2877.5	3584.5	3779.4	3901.6	4019.5	4037.6	4042.1
25°	657.1	938.1	1862.5	2152.5	2986.3	3661.5	3811.0	3901.6	3969.7	3978.7	3978.7
27.5°	589.1	842.9	1844.3	2161.6	3067.8	3679.6	3797.5	3860.8	3892.6	3910.7	3910.7
30°	530.2	752.2	1799.0	2143.4	3104.1	3661.5	3756.7	3788.4	3820.1	3847.3	3860.8
32.5°	484.9	666.2	1731.1	2107.2	3108.6	3616.2	3684.2	3702.3	3747.6	3811.0	3833.7
35°	444.1	580.0	1654.0	2057.3	3081.5	3543.7	3589.0	3607.2	3697.8	3792.9	3824.6
37.5°	403.3	516.6	1554.3	1971.3	3040.7	3457.6	3489.3	3521.0	3661.5	3774.8	3811.0
40°	362.5	462.2	1436.5	1876.1	2977.2	3353.4	3380.5	3430.4	3616.2	3747.6	3783.8
42.5°	330.8	416.9	1309.7	1776.4	2895.7	3235.6	3276.4	3348.8	3561.8	3702.3	3743.1
45°	303.6	371.6	1173.7	1640.5	2791.4	3113.2	3172.1	3271.8	3498.4	3634.3	3670.5
47.5°	276.4	339.9	1033.2	1500.0	2678.1	2990.8	3067.8	3181.1	3412.3	3543.7	3575.4
50°	253.8	308.1	892.7	1350.4	2555.8	2859.4	2950.0	3067.8	3303.5	3425.9	3466.7
52.5°	235.7	281.0	761.3	1200.8	2415.3	2723.5	2827.7	2950.0	3172.1	3289.9	3317.1
55°	217.5	258.3	648.0	1042.2	2270.3	2578.4	2691.8	2809.6	3027.1	3126.8	3144.9
57.5°	208.4	240.2	552.9	892.7	2116.2	2415.3	2542.2	2651.0	2854.9	2931.9	2950.0
60°	194.9	226.5	480.3	765.9	1948.6	2261.3	2370.0	2478.8	2651.0	2714.4	2728.0
62.5°	181.3	217.5	426.0	643.5	1776.4	2080.0	2188.7	2288.4	2433.5	2478.8	2496.9
65°	172.2	208.4	385.2	552.9	1599.7	1889.7	1998.4	2084.5	2202.4	2247.6	2256.7
67.5°	163.2	199.4	353.5	475.9	1422.9	1699.4	1780.9	1862.5	1953.1	1998.4	2003.0
70°	149.5	190.3	326.3	421.4	1241.6	1481.8	1549.8	1635.9	1708.4	1731.1	1744.6
72.5°	140.5	176.7	308.1	380.6	1055.9	1273.4	1336.8	1386.7	1450.1	1472.7	1472.7
75°	126.8	158.6	290.0	339.9	865.5	1042.2	1096.7	1146.5	1196.3	1205.4	1191.8
77.5°	113.3	140.5	249.2	285.5	675.2	824.8	870.0	897.3	938.1	947.1	951.6
80°	95.2	122.4	194.9	222.1	489.4	607.2	638.9	661.6	697.9	697.9	707.0
82.5°	72.5	95.2	140.5	158.6	330.8	416.9	444.1	457.6	480.3	480.3	480.3
85°	45.3	58.9	90.6	104.3	199.4	253.8	271.9	276.4	294.6	299.1	299.1
87.5°	22.7	31.7	58.9	63.5	104.3	131.4	131.4	140.5	140.5	135.9	131.4
90°	5.5	9.9	14.4	15.4	24.3	36.1	42.0	37.3	27.9	21.0	21.0
92.5°	22.0	59.5	97.1	106.5	149.7	207.4	236.2	207.0	148.6	104.9	100.7
95°	53.0	121.7	190.4	207.5	368.5	583.1	690.4	616.1	467.5	356.0	343.3
97.5°	91.6	152.2	212.8	228.0	496.4	854.2	1033.2	986.3	892.3	821.8	797.8
100°	121.4	176.4	231.3	245.0	542.9	940.0	1138.6	1142.0	1148.9	1154.1	1125.4
102.5°	146.8	198.1	249.3	262.2	564.2	967.1	1168.4	1228.2	1347.9	1437.7	1413.2
105°	189.9	233.2	276.6	287.5	580.0	970.1	1165.1	1299.3	1567.6	1768.9	1755.7
107.5°	234.0	274.5	315.0	325.1	583.1	927.0	1098.9	1286.1	1660.5	1941.2	1944.4
110°	263.9	300.4	337.0	346.1	578.6	888.7	1043.7	1253.0	1671.4	1985.3	1999.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	293.0	327.9	362.7	371.4	578.8	855.2	993.5	1207.6	1635.9	1957.2	1978.2
115°	337.2	369.4	401.5	409.5	584.1	816.9	933.3	1139.6	1552.2	1861.6	1890.9
117.5°	380.8	410.0	439.2	446.5	594.9	792.9	891.9	1078.1	1450.4	1729.7	1762.1
120°	406.2	433.7	461.1	468.0	603.8	784.9	875.4	1045.5	1385.7	1640.9	1672.4
122.5°	431.0	458.8	486.5	493.4	616.5	780.6	862.6	1015.8	1322.2	1552.0	1583.1
125°	469.2	494.4	519.7	526.0	633.7	777.1	848.9	979.0	1239.2	1434.4	1463.1
127.5°	500.0	525.6	551.1	557.4	650.7	775.1	837.3	949.0	1172.5	1340.1	1364.3
130°	516.6	544.1	571.5	578.4	663.2	776.3	832.9	932.3	1131.3	1280.5	1302.8
132.5°	533.7	561.2	588.7	595.6	673.4	777.1	829.0	918.1	1096.1	1229.7	1249.7
135°	559.1	584.1	609.1	615.4	684.4	776.4	822.4	897.0	1046.2	1158.0	1175.2
137.5°	585.0	609.8	634.7	640.8	701.0	781.2	821.3	884.3	1010.4	1105.0	1119.1
140°	606.5	629.4	652.1	657.9	711.1	781.9	817.4	871.8	980.8	1062.5	1075.7
142.5°	623.1	644.2	665.4	670.6	719.5	784.8	817.4	865.2	960.9	1032.7	1044.0
145°	648.5	666.9	685.3	689.9	730.6	784.8	811.9	851.0	929.3	988.0	996.5
147.5°	673.9	691.8	709.7	714.2	746.8	790.2	811.9	842.7	904.3	950.5	957.6
150°	690.4	706.6	722.8	726.9	755.2	793.0	811.9	837.9	889.9	928.9	934.7
152.5°	707.6	719.8	732.1	735.2	760.8	794.9	811.9	834.2	878.5	911.8	916.2
155°	732.9	742.0	751.1	753.4	772.9	798.9	811.9	829.6	864.9	891.4	894.2
157.5°	751.8	760.6	769.3	771.6	785.1	803.0	811.9	825.7	853.1	873.7	875.7
160°	764.4	771.3	778.2	779.9	790.6	804.8	811.9	823.7	847.2	864.9	866.0
162.5°	777.1	782.3	787.5	788.7	796.5	806.7	811.9	821.8	841.7	856.6	857.6
165°	791.0	795.6	800.2	801.4	804.9	809.6	811.9	819.1	833.3	843.9	845.0
167.5°	803.6	805.8	808.0	808.5	811.5	815.4	817.4	822.0	831.4	838.3	838.9
170°	811.9	814.1	816.3	816.8	817.0	817.3	817.4	822.0	831.4	838.3	838.3
172.5°	816.3	816.7	817.3	817.4	817.4	817.4	817.4	821.0	828.4	834.0	833.5
175°	822.4	822.4	822.4	822.4	820.7	818.4	817.4	819.7	824.4	827.9	827.9
177.5°	822.4	822.4	822.4	822.4	821.1	819.4	818.5	820.4	824.1	826.8	826.3
180°	822.4	822.4	822.4	822.4	822.4	822.4	822.4	822.4	822.4	822.4	822.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1409.4	1409.4
2.5°	1504.5	1495.4
5°	1935.0	1944.0
7.5°	2605.6	2601.1
10°	3240.0	3280.8
12.5°	3702.3	3711.3
15°	3983.2	4001.3
17.5°	4092.0	4096.5
20°	4096.5	4087.5
22.5°	4046.7	4037.6
25°	3987.8	3983.2
27.5°	3933.4	3938.0
30°	3910.7	3924.3
32.5°	3910.7	3933.4
35°	3919.8	3942.4
37.5°	3915.3	3942.4
40°	3897.2	3928.9
42.5°	3847.3	3870.0
45°	3770.2	3797.5
47.5°	3670.5	3688.7
50°	3543.7	3561.8
52.5°	3385.1	3389.6
55°	3194.8	3212.9
57.5°	2990.8	2995.4
60°	2764.3	2777.8
62.5°	2524.1	2524.1
65°	2270.3	2279.4
67.5°	2007.5	2030.2
70°	1740.2	1744.6
72.5°	1477.3	1477.3
75°	1205.4	1209.9
77.5°	947.1	947.1
80°	702.4	707.0
82.5°	484.9	494.0
85°	303.6	303.6
87.5°	140.5	126.8
90°	21.0	21.0
92.5°	84.0	67.3
95°	292.8	242.3
97.5°	701.6	605.5
100°	1010.9	896.4
102.5°	1315.1	1217.0
105°	1703.0	1650.3
107.5°	1957.1	1969.8
110°	2053.9	2108.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2062.7	2147.0
115°	2007.9	2125.0
117.5°	1891.9	2021.7
120°	1798.5	1924.6
122.5°	1707.5	1831.8
125°	1577.6	1692.2
127.5°	1460.9	1557.5
130°	1392.1	1481.4
132.5°	1329.6	1409.6
135°	1244.1	1313.0
137.5°	1175.5	1231.9
140°	1128.4	1181.1
142.5°	1089.4	1134.8
145°	1030.9	1065.3
147.5°	986.0	1014.5
150°	957.7	980.8
152.5°	933.6	951.0
155°	905.8	917.3
157.5°	883.8	891.9
160°	870.8	875.4
162.5°	862.1	866.6
165°	849.8	854.4
167.5°	840.8	842.8
170°	838.3	838.3
172.5°	831.8	830.1
175°	827.9	827.9
177.5°	824.3	822.4
180°	822.4	822.4



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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	7.55	8.65	8.34	9.46	10.46	20.74	21.84	21.53	22.66	23.66
	3H	8.28	9.26	9.07	10.09	11.12	22.61	23.60	23.40	24.42	25.45
	4H	8.58	9.52	9.40	10.35	11.39	23.27	24.20	24.08	25.03	26.07
	6H	8.85	9.71	9.68	10.55	11.60	23.71	24.58	24.54	25.42	26.47
	8H	8.92	9.75	9.76	10.61	11.66	23.84	24.67	24.68	25.53	26.58
	12H	8.95	9.73	9.79	10.59	11.67	23.92	24.71	24.77	25.56	26.64
4H	2H	14.80	15.74	15.62	16.57	17.61	21.05	21.98	21.87	22.81	23.85
	3H	16.39	17.18	17.22	18.04	19.10	23.12	23.90	23.95	24.77	25.82
	4H	16.50	17.21	17.34	18.08	19.16	23.90	24.61	24.74	25.48	26.56
	6H	16.52	17.14	17.38	18.03	19.12	24.46	25.08	25.32	25.97	27.05
	8H	16.50	17.09	17.37	17.97	19.07	24.63	25.21	25.49	26.09	27.19
	12H	16.47	17.00	17.36	17.90	19.01	24.74	25.26	25.62	26.16	27.27
8H	4H	17.97	18.55	18.83	19.43	20.53	23.98	24.56	24.84	25.44	26.54
	6H	18.22	18.70	19.11	19.63	20.73	24.62	25.11	25.52	26.03	27.13
	8H	18.24	18.67	19.14	19.59	20.70	24.85	25.28	25.75	26.20	27.31
	12H	18.22	18.60	19.13	19.51	20.68	25.01	25.39	25.92	26.30	27.47
12H	4H	18.12	18.65	19.01	19.55	20.65	23.94	24.47	24.83	25.37	26.48
	6H	18.48	18.91	19.39	19.83	20.95	24.61	25.04	25.51	25.96	27.07
	8H	18.56	18.94	19.47	19.85	21.02	24.86	25.23	25.76	26.14	27.31