

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: P936953

Luminaire Tested: SQ4-FB-050U-125D-93050-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936953
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-93050-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

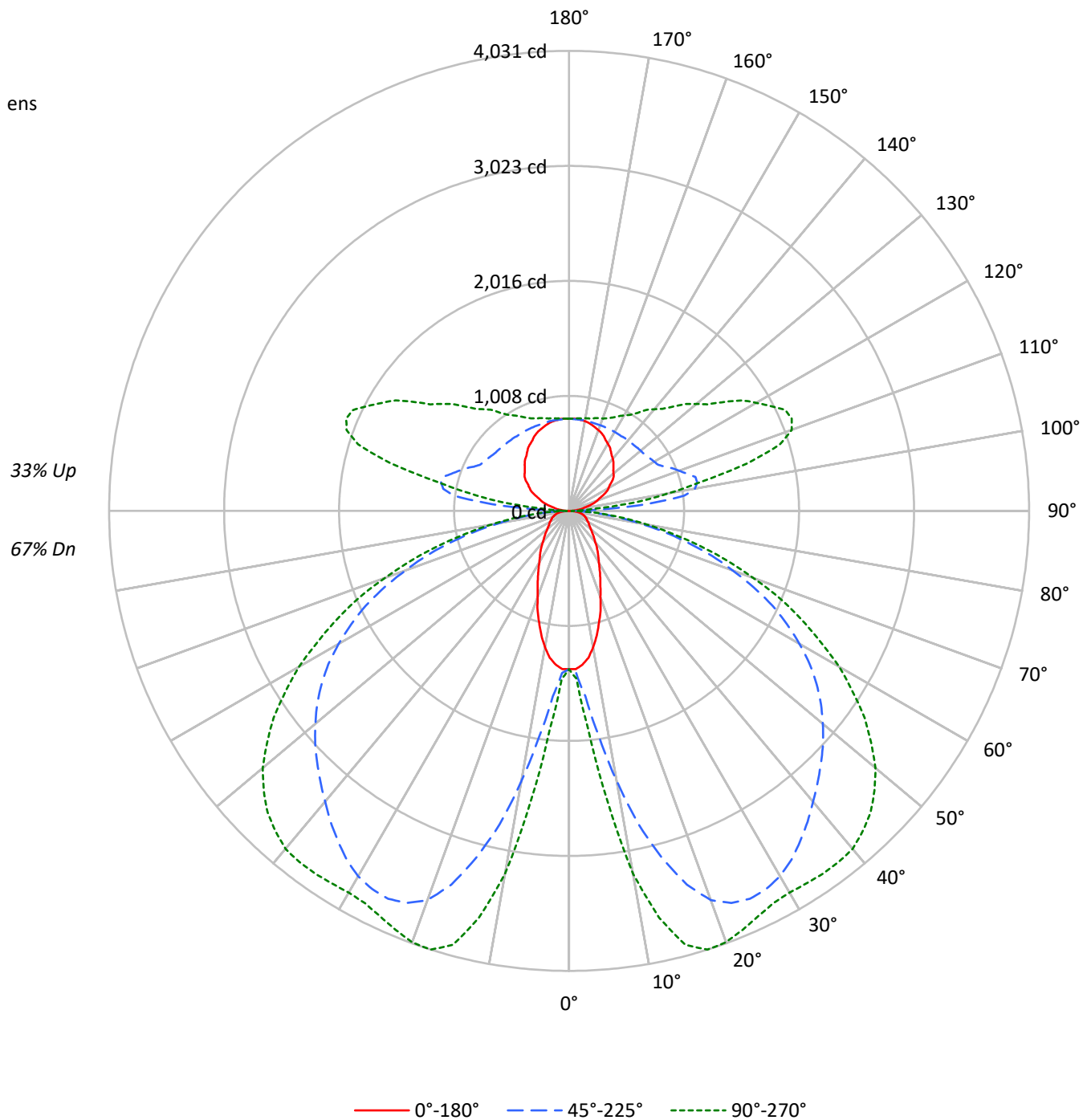
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15976.3 lumens
Efficiency: N/A
Efficacy: 95.1 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°	4289	4289	4289
5°	4192	4959	5765
10°	3804	7230	9558
15°	3234	9448	11541
20°	2634	10951	11762
25°	2198	11463	11523
30°	1854	11538	11502
35°	1641	11350	11799
40°	1430	11104	12106
45°	1296	10925	12154
50°	1190	10764	11953
55°	1140	10528	11423
60°	1169	10070	10586
65°	1218	9372	9437
70°	1301	8179	7972
75°	1446	6675	6221
80°	1592	4635	4192
85°	1445	2463	2145

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12154 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.4	1.1
10°-20°	795.0	5.0
20°-30°	1390.6	8.7
30°-40°	1790.1	11.2
40°-50°	1999.5	12.5
50°-60°	1915.0	12.0
60°-70°	1517.7	9.5
70°-80°	892.4	5.6
80°-90°	251.0	1.6
90°-100°	394.4	2.5
100°-110°	1037.0	6.5
110°-120°	1075.3	6.7
120°-130°	862.5	5.4
130°-140°	676.7	4.2
140°-150°	519.4	3.3
150°-160°	374.1	2.3
160°-170°	228.9	1.4
170°-180°	77.3	0.5
0°-30°	2365.0	14.8
0°-40°	4155.1	26.0
0°-60°	8069.6	50.5
0°-90°	10730.7	67.2
90°-120°	2506.7	15.7
90°-150°	4565.3	28.6
90°-180°	5246.0	32.8
0°-180°	15976.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1387	1387	1387	1387	1387	
5°	1351	1449	1632	1846	1913	125
15°	1012	1868	3148	3817	3937	282
25°	646	2118	3750	3915	3919	298
35°	437	2024	3531	3732	3879	273
45°	299	1614	3121	3576	3737	231
55°	214	1026	2649	3077	3161	195
65°	169	544	1966	2212	2243	168
75°	125	334	1079	1186	1190	131
85°	45	103	268	294	299	47
90°	5	15	41	21	21	8
95°	52	204	679	350	238	58
105°	187	283	1146	1740	1624	198
115°	332	403	918	1832	2091	328
125°	462	518	835	1411	1665	410
135°	550	606	809	1139	1292	426
145°	638	679	799	972	1048	400
155°	721	741	799	877	903	331
165°	778	788	799	830	841	220
175°	809	809	804	815	815	77
180°	809	809	809	809	809	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7	1386.7
2.5°	1386.7	1386.7	1395.6	1400.1	1409.0	1413.4	1422.4	1431.3	1458.1	1462.5	1471.4
5°	1351.0	1368.8	1426.8	1449.1	1511.6	1596.3	1632.0	1689.9	1810.3	1846.0	1868.2
7.5°	1297.5	1337.7	1480.4	1516.0	1672.1	1895.0	1988.6	2113.5	2305.3	2398.9	2474.7
10°	1212.8	1297.5	1551.7	1636.4	1890.5	2229.4	2403.3	2577.2	2867.0	2996.3	3045.4
12.5°	1119.2	1257.4	1627.5	1743.4	2109.1	2604.0	2813.5	3005.3	3335.3	3509.2	3535.9
15°	1012.2	1199.4	1698.8	1868.2	2340.9	2916.1	3147.9	3384.3	3691.9	3816.8	3848.0
17.5°	918.5	1154.9	1765.7	1944.0	2519.2	3197.0	3433.4	3629.5	3879.2	3963.9	3986.3
20°	802.6	1083.5	1810.3	2042.1	2706.6	3402.1	3629.5	3781.1	3950.6	4004.1	4013.0
22.5°	717.8	1007.7	1837.1	2077.8	2831.4	3527.0	3718.7	3839.1	3955.0	3972.8	3977.3
25°	646.5	923.0	1832.6	2117.9	2938.4	3602.8	3749.9	3839.1	3906.0	3914.9	3914.9
27.5°	579.7	829.4	1814.7	2126.9	3018.6	3620.6	3736.6	3798.9	3830.2	3848.0	3848.0
30°	521.7	740.1	1770.1	2109.1	3054.3	3602.8	3696.4	3727.6	3758.9	3785.6	3798.9
32.5°	477.1	655.5	1703.3	2073.4	3058.8	3558.2	3625.1	3642.9	3687.5	3749.9	3772.2
35°	437.0	570.7	1627.5	2024.3	3032.1	3486.9	3531.4	3549.3	3638.4	3732.1	3763.3
37.5°	396.8	508.3	1529.4	1939.6	2991.9	3402.1	3433.4	3464.5	3602.8	3714.2	3749.9
40°	356.7	454.8	1413.4	1846.0	2929.5	3299.6	3326.3	3375.4	3558.2	3687.5	3723.1
42.5°	325.5	410.3	1288.6	1747.9	2849.2	3183.7	3223.8	3295.1	3504.7	3642.9	3683.1
45°	298.7	365.6	1154.9	1614.1	2746.6	3063.3	3121.2	3219.3	3442.2	3576.0	3611.7
47.5°	272.0	334.5	1016.6	1475.9	2635.2	2942.8	3018.6	3130.1	3357.6	3486.9	3518.0
50°	249.7	303.2	878.4	1328.8	2514.8	2813.5	2902.7	3018.6	3250.5	3370.9	3411.1
52.5°	231.9	276.5	749.1	1181.6	2376.6	2679.8	2782.4	2902.7	3121.2	3237.2	3263.9
55°	214.0	254.2	637.6	1025.5	2233.9	2537.1	2648.6	2764.5	2978.5	3076.6	3094.4
57.5°	205.1	236.4	544.0	878.4	2082.3	2376.6	2501.4	2608.5	2809.1	2884.9	2902.7
60°	191.7	222.9	472.6	753.6	1917.3	2225.0	2332.0	2439.0	2608.5	2670.8	2684.3
62.5°	178.4	214.0	419.1	633.2	1747.9	2046.6	2153.6	2251.7	2394.4	2439.0	2456.9
65°	169.4	205.1	379.0	544.0	1574.0	1859.4	1966.3	2051.1	2167.0	2211.6	2220.5
67.5°	160.6	196.2	347.8	468.2	1400.1	1672.1	1752.3	1832.6	1921.8	1966.3	1970.8
70°	147.1	187.3	321.0	414.6	1221.7	1458.1	1524.9	1609.7	1681.0	1703.3	1716.6
72.5°	138.2	173.9	303.2	374.5	1038.9	1253.0	1315.3	1364.4	1426.8	1449.1	1449.1
75°	124.8	156.1	285.4	334.5	851.6	1025.5	1079.1	1128.1	1177.1	1186.1	1172.7
77.5°	111.5	138.2	245.2	280.9	664.3	811.6	856.1	882.9	923.0	931.9	936.4
80°	93.6	120.4	191.7	218.5	481.6	597.5	628.7	651.0	686.7	686.7	695.6
82.5°	71.3	93.6	138.2	156.1	325.5	410.3	437.0	450.3	472.6	472.6	472.6
85°	44.6	58.0	89.1	102.6	196.2	249.7	267.5	272.0	289.8	294.3	294.3
87.5°	22.3	31.2	58.0	62.4	102.6	129.3	129.3	138.2	138.2	133.8	129.3
90°	5.4	9.7	14.1	15.2	23.9	35.5	41.3	36.7	27.5	20.6	20.6
92.5°	21.7	58.6	95.6	104.8	147.3	204.0	232.4	203.7	146.2	103.2	99.1
95°	52.2	119.7	187.3	204.2	362.6	573.8	679.4	606.2	460.0	350.3	337.8
97.5°	90.1	149.8	209.4	224.3	488.4	840.5	1016.6	970.4	877.9	808.7	785.0
100°	119.4	173.6	227.6	241.1	534.2	924.9	1120.4	1123.7	1130.5	1135.6	1107.4
102.5°	144.5	194.9	245.3	258.0	555.2	951.6	1149.7	1208.5	1326.3	1414.7	1390.5
105°	186.8	229.5	272.2	282.9	570.7	954.5	1146.4	1278.5	1542.5	1740.5	1727.5
107.5°	230.3	270.1	310.0	319.9	573.7	912.1	1081.3	1265.5	1633.8	1910.0	1913.2
110°	259.6	295.5	331.6	340.5	569.3	874.4	1027.0	1232.9	1644.6	1953.4	1967.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	288.3	322.6	356.9	365.5	569.5	841.5	977.5	1188.3	1609.7	1925.8	1946.5
115°	331.8	363.4	395.1	403.0	574.8	803.8	918.4	1121.3	1527.3	1831.8	1860.6
117.5°	374.7	403.4	432.1	439.3	585.4	780.2	877.6	1060.8	1427.2	1702.0	1733.9
120°	399.7	426.8	453.7	460.5	594.1	772.3	861.3	1028.8	1363.5	1614.6	1645.6
122.5°	424.1	451.4	478.7	485.5	606.6	768.1	848.8	999.5	1301.0	1527.1	1557.7
125°	461.6	486.5	511.3	517.6	623.5	764.6	835.3	963.3	1219.3	1411.4	1439.6
127.5°	492.0	517.1	542.3	548.5	640.3	762.6	823.8	933.8	1153.6	1318.6	1342.4
130°	508.4	535.4	562.4	569.1	652.6	763.9	819.5	917.4	1113.2	1259.9	1281.9
132.5°	525.1	552.2	579.2	586.0	662.6	764.6	815.7	903.3	1078.6	1209.9	1229.6
135°	550.2	574.8	599.4	605.5	673.4	763.9	809.2	882.6	1029.4	1139.4	1156.4
137.5°	575.6	600.1	624.5	630.5	689.7	768.7	808.1	870.1	994.2	1087.2	1101.1
140°	596.8	619.3	641.7	647.3	699.7	769.4	804.3	857.8	965.1	1045.4	1058.4
142.5°	613.1	633.9	654.7	659.9	708.0	772.2	804.3	851.3	945.5	1016.1	1027.3
145°	638.1	656.2	674.3	678.8	718.9	772.2	798.9	837.4	914.4	972.1	980.5
147.5°	663.1	680.7	698.3	702.7	734.8	777.6	798.9	829.2	889.8	935.2	942.2
150°	679.4	695.3	711.2	715.2	743.1	780.3	798.9	824.5	875.6	914.0	919.7
152.5°	696.2	708.3	720.4	723.4	748.6	782.1	798.9	820.8	864.4	897.2	901.5
155°	721.2	730.1	739.1	741.3	760.5	786.1	798.9	816.3	851.0	877.1	879.9
157.5°	739.7	748.4	757.0	759.2	772.5	790.1	798.9	812.4	839.4	859.7	861.7
160°	752.2	758.9	765.7	767.4	777.9	791.9	798.9	810.5	833.6	851.0	852.1
162.5°	764.6	769.7	774.8	776.1	783.7	793.8	798.9	808.7	828.2	842.8	843.9
165°	778.3	782.8	787.4	788.5	792.0	796.6	798.9	805.9	819.9	830.3	831.5
167.5°	790.7	792.8	795.0	795.6	798.5	802.3	804.3	808.8	818.0	824.9	825.4
170°	798.9	801.0	803.2	803.7	803.9	804.2	804.3	808.8	818.0	824.9	824.9
172.5°	803.2	803.6	804.2	804.3	804.3	804.3	804.3	807.9	815.2	820.6	820.2
175°	809.2	809.2	809.2	809.2	807.5	805.3	804.3	806.5	811.2	814.6	814.6
177.5°	809.2	809.2	809.2	809.2	807.9	806.3	805.4	807.2	810.8	813.6	813.0
180°	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1386.7	1386.7
2.5°	1480.4	1471.4
5°	1904.0	1912.9
7.5°	2563.8	2559.4
10°	3188.1	3228.2
12.5°	3642.9	3651.8
15°	3919.3	3937.2
17.5°	4026.4	4030.8
20°	4030.8	4021.9
22.5°	3981.8	3972.8
25°	3923.8	3919.3
27.5°	3870.3	3874.8
30°	3848.0	3861.4
32.5°	3848.0	3870.3
35°	3856.9	3879.2
37.5°	3852.5	3879.2
40°	3834.7	3865.8
42.5°	3785.6	3807.9
45°	3709.8	3736.6
47.5°	3611.7	3629.5
50°	3486.9	3504.7
52.5°	3330.8	3335.3
55°	3143.5	3161.4
57.5°	2942.8	2947.3
60°	2719.9	2733.3
62.5°	2483.6	2483.6
65°	2233.9	2242.8
67.5°	1975.3	1997.6
70°	1712.2	1716.6
72.5°	1453.6	1453.6
75°	1186.1	1190.5
77.5°	931.9	931.9
80°	691.1	695.6
82.5°	477.1	486.1
85°	298.7	298.7
87.5°	138.2	124.8
90°	20.6	20.6
92.5°	82.6	66.2
95°	288.1	238.4
97.5°	690.3	595.8
100°	994.7	882.0
102.5°	1294.0	1197.5
105°	1675.7	1623.8
107.5°	1925.7	1938.2
110°	2021.0	2075.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2029.6	2112.6
115°	1975.7	2090.9
117.5°	1861.6	1989.3
120°	1769.7	1893.7
122.5°	1680.1	1802.4
125°	1552.3	1665.1
127.5°	1437.4	1532.5
130°	1369.8	1457.6
132.5°	1308.3	1387.0
135°	1224.2	1292.0
137.5°	1156.6	1212.1
140°	1110.3	1162.2
142.5°	1072.0	1116.6
145°	1014.3	1048.2
147.5°	970.2	998.2
150°	942.3	965.1
152.5°	918.6	935.7
155°	891.3	902.6
157.5°	869.6	877.6
160°	856.8	861.3
162.5°	848.3	852.7
165°	836.1	840.7
167.5°	827.4	829.3
170°	824.9	824.9
172.5°	818.5	816.8
175°	814.6	814.6
177.5°	811.1	809.2
180°	809.2	809.2



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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	7.50	8.59	8.28	9.41	10.41	20.69	21.78	21.47	22.60	23.60
	3H	8.22	9.21	9.02	10.03	11.06	22.55	23.54	23.35	24.36	25.39
	4H	8.53	9.46	9.34	10.30	11.33	23.21	24.14	24.03	24.98	26.02
	6H	8.79	9.66	9.62	10.50	11.55	23.66	24.52	24.49	25.36	26.41
	8H	8.87	9.69	9.70	10.55	11.60	23.79	24.61	24.62	25.47	26.53
	12H	8.89	9.68	9.74	10.53	11.61	23.87	24.65	24.71	25.51	26.59
4H	2H	14.75	15.68	15.57	16.52	17.55	20.99	21.92	21.81	22.76	23.80
	3H	16.34	17.12	17.17	17.99	19.04	23.06	23.85	23.89	24.71	25.77
	4H	16.44	17.16	17.29	18.02	19.10	23.84	24.56	24.69	25.42	26.50
	6H	16.47	17.09	17.33	17.97	19.06	24.40	25.02	25.26	25.91	26.99
	8H	16.45	17.03	17.31	17.91	19.01	24.57	25.15	25.44	26.04	27.14
	12H	16.42	16.94	17.30	17.84	18.95	24.68	25.20	25.57	26.11	27.21
8H	4H	17.91	18.49	18.77	19.37	20.47	23.92	24.50	24.79	25.39	26.49
	6H	18.16	18.65	19.06	19.57	20.67	24.57	25.05	25.46	25.98	27.07
	8H	18.18	18.61	19.09	19.53	20.65	24.79	25.22	25.70	26.14	27.26
	12H	18.16	18.54	19.07	19.45	20.62	24.95	25.33	25.86	26.24	27.41
12H	4H	18.07	18.59	18.95	19.49	20.60	23.89	24.41	24.77	25.31	26.42
	6H	18.43	18.86	19.33	19.77	20.89	24.55	24.98	25.46	25.90	27.02
	8H	18.51	18.89	19.42	19.80	20.96	24.80	25.18	25.71	26.09	27.25