

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: P936809

Luminaire Tested: SQ4-FB-050U-100D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936809
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

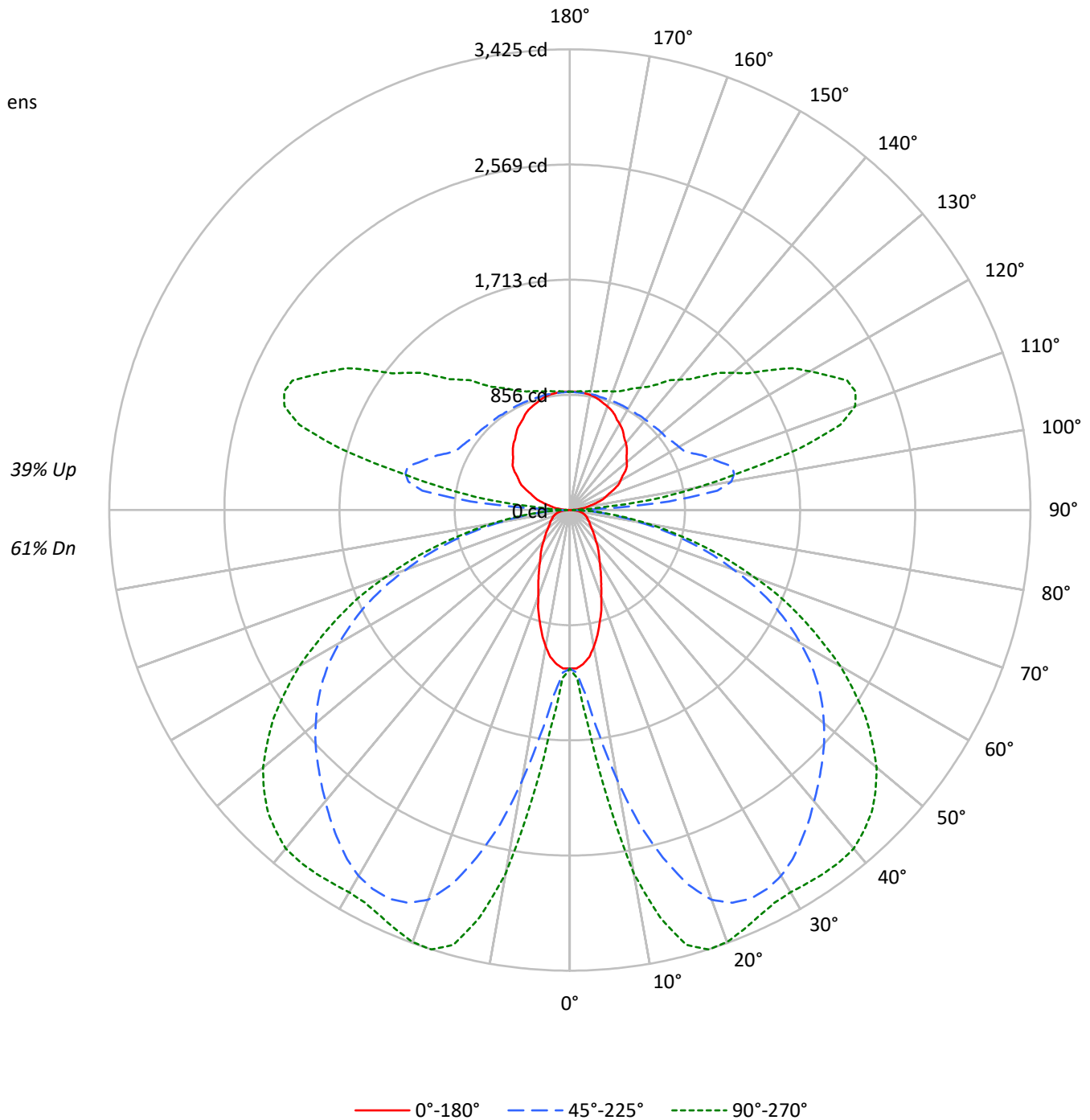
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14829.4 lumens
Efficiency: N/A
Efficacy: 109.4 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): 135.6
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	50	30	10	0
RCR																					
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61			
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50			
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41			
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34			
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28			
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24			
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21			
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18			
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16			
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14			
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3645	3645	3645
5°	3562	4214	4900
10°	3232	6144	8122
15°	2748	8029	9808
20°	2238	9307	9996
25°	1868	9741	9793
30°	1576	9805	9774
35°	1394	9645	10027
40°	1215	9436	10288
45°	1101	9284	10329
50°	1011	9148	10157
55°	969	8947	9707
60°	993	8558	8996
65°	1035	7965	8019
70°	1105	6951	6775
75°	1230	5672	5287
80°	1352	3939	3562
85°	1228	2093	1824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10329 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.4	1.0
10°-20°	675.6	4.6
20°-30°	1181.7	8.0
30°-40°	1521.2	10.3
40°-50°	1699.2	11.5
50°-60°	1627.4	11.0
60°-70°	1289.7	8.7
70°-80°	758.4	5.1
80°-90°	214.0	1.4
90°-100°	429.3	2.9
100°-110°	1128.7	7.6
110°-120°	1170.4	7.9
120°-130°	938.8	6.3
130°-140°	736.6	5.0
140°-150°	565.4	3.8
150°-160°	407.2	2.7
160°-170°	249.1	1.7
170°-180°	84.2	0.6
0°-30°	2009.8	13.6
0°-40°	3531.0	23.8
0°-60°	6857.6	46.2
0°-90°	9119.8	61.5
90°-120°	2728.4	18.4
90°-150°	4969.2	33.5
90°-180°	5710.0	38.5
0°-180°	14829.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1178	1178	1178	1178	1178	
5°	1148	1232	1387	1569	1626	106
15°	860	1588	2675	3244	3346	239
25°	549	1800	3187	3327	3331	253
35°	371	1720	3001	3172	3297	232
45°	254	1372	2652	3039	3175	196
55°	182	872	2251	2615	2687	166
65°	144	462	1671	1879	1906	143
75°	106	284	917	1008	1012	111
85°	38	87	227	250	254	40
90°	6	16	45	22	22	7
95°	57	222	740	381	260	63
105°	203	308	1248	1894	1768	216
115°	361	439	1000	1994	2276	357
125°	502	563	909	1536	1812	446
135°	599	659	881	1240	1406	463
145°	694	739	870	1058	1141	435
155°	785	807	870	955	982	361
165°	847	858	870	904	915	239
175°	881	881	875	887	887	84
180°	881	881	881	881	881	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1178.5	1178.5	1178.5	1178.5	1178.5	1178.5	1178.5	1178.5	1178.5	1178.5	1178.5
2.5°	1178.5	1178.5	1186.0	1189.8	1197.4	1201.2	1208.8	1216.3	1239.1	1242.9	1250.4
5°	1148.2	1163.3	1212.6	1231.5	1284.6	1356.6	1386.9	1436.1	1538.4	1568.7	1587.6
7.5°	1102.7	1136.8	1258.0	1288.3	1420.9	1610.4	1690.0	1796.0	1959.0	2038.6	2103.0
10°	1030.7	1102.7	1318.6	1390.6	1606.7	1894.6	2042.4	2190.2	2436.5	2546.3	2588.0
12.5°	951.1	1068.5	1383.0	1481.6	1792.3	2212.9	2391.0	2554.0	2834.3	2982.1	3004.8
15°	860.1	1019.3	1443.7	1587.6	1989.3	2478.1	2675.2	2876.0	3137.5	3243.5	3270.1
17.5°	780.6	981.4	1500.5	1652.1	2140.9	2716.9	2917.7	3084.4	3296.6	3368.6	3387.6
20°	682.0	920.8	1538.4	1735.4	2300.0	2891.1	3084.4	3213.2	3357.2	3402.7	3410.2
22.5°	610.0	856.4	1561.1	1765.7	2406.2	2997.3	3160.2	3262.5	3361.0	3376.2	3379.9
25°	549.4	784.4	1557.3	1799.9	2497.1	3061.7	3186.7	3262.5	3319.3	3326.9	3326.9
27.5°	492.6	704.8	1542.2	1807.4	2565.3	3076.8	3175.4	3228.4	3254.9	3270.1	3270.1
30°	443.3	629.0	1504.3	1792.3	2595.6	3061.7	3141.2	3167.8	3194.3	3217.0	3228.4
32.5°	405.4	557.0	1447.5	1762.0	2599.4	3023.8	3080.6	3095.8	3133.7	3186.7	3205.7
35°	371.3	485.0	1383.0	1720.3	2576.6	2963.1	3001.1	3016.2	3092.0	3171.5	3198.1
37.5°	337.3	432.0	1299.7	1648.3	2542.6	2891.1	2917.7	2944.2	3061.7	3156.4	3186.7
40°	303.1	386.5	1201.2	1568.7	2489.5	2804.0	2826.7	2868.4	3023.8	3133.7	3164.0
42.5°	276.6	348.7	1095.1	1485.3	2421.3	2705.5	2739.6	2800.2	2978.3	3095.8	3129.8
45°	253.9	310.7	981.4	1371.7	2334.2	2603.2	2652.4	2735.8	2925.3	3038.9	3069.2
47.5°	231.2	284.2	863.9	1254.3	2239.4	2500.9	2565.3	2660.0	2853.3	2963.1	2989.7
50°	212.2	257.6	746.4	1129.2	2137.1	2391.0	2466.8	2565.3	2762.4	2864.7	2898.8
52.5°	197.0	234.9	636.6	1004.2	2019.6	2277.3	2364.5	2466.8	2652.4	2751.0	2773.7
55°	181.9	216.0	541.9	871.5	1898.4	2156.1	2250.8	2349.3	2531.2	2614.6	2629.7
57.5°	174.3	200.9	462.3	746.4	1769.6	2019.6	2125.8	2216.7	2387.2	2451.6	2466.8
60°	162.9	189.5	401.6	640.3	1629.3	1890.8	1981.8	2072.7	2216.7	2269.7	2281.1
62.5°	151.5	181.9	356.2	538.0	1485.3	1739.3	1830.2	1913.5	2034.8	2072.7	2087.8
65°	144.0	174.3	322.1	462.3	1337.6	1580.1	1671.0	1743.1	1841.5	1879.4	1887.0
67.5°	136.4	166.7	295.6	397.9	1189.8	1420.9	1489.2	1557.3	1633.1	1671.0	1674.8
70°	125.0	159.2	272.8	352.4	1038.2	1239.1	1296.0	1367.9	1428.6	1447.5	1458.9
72.5°	117.5	147.8	257.6	318.3	882.9	1064.8	1117.9	1159.5	1212.6	1231.5	1231.5
75°	106.1	132.6	242.5	284.2	723.7	871.5	917.0	958.7	1000.4	1007.9	996.5
77.5°	94.7	117.5	208.4	238.7	564.6	689.7	727.5	750.3	784.4	792.0	795.8
80°	79.5	102.3	162.9	185.7	409.3	507.7	534.3	553.2	583.5	583.5	591.1
82.5°	60.6	79.5	117.5	132.6	276.6	348.7	371.3	382.7	401.6	401.6	401.6
85°	37.9	49.2	75.8	87.2	166.7	212.2	227.3	231.2	246.3	250.1	250.1
87.5°	18.9	26.5	49.2	53.1	87.2	109.8	109.8	117.5	117.5	113.7	109.8
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	40.0	29.9	22.5	22.5
92.5°	23.6	63.8	104.0	114.1	160.3	222.1	253.0	221.7	159.2	112.3	107.8
95°	56.8	130.3	203.9	222.3	394.6	624.6	739.5	659.8	500.7	381.3	367.7
97.5°	98.1	163.0	227.9	244.2	531.6	914.9	1106.6	1056.3	955.6	880.2	854.5
100°	130.0	188.9	247.7	262.4	581.4	1006.8	1219.5	1223.1	1230.5	1236.0	1205.3
102.5°	157.3	212.1	267.0	280.8	604.3	1035.7	1251.4	1315.5	1443.7	1539.8	1513.5
105°	203.3	249.8	296.3	307.9	621.2	1039.0	1247.9	1391.6	1678.9	1894.5	1880.4
107.5°	250.7	294.0	337.4	348.2	624.5	992.8	1176.9	1377.4	1778.4	2079.0	2082.5
110°	282.6	321.7	360.9	370.6	619.7	951.8	1117.9	1341.9	1790.1	2126.2	2141.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.9	351.1	388.4	397.8	619.9	915.9	1064.0	1293.4	1752.1	2096.1	2118.7
115°	361.2	395.6	430.0	438.6	625.6	874.9	999.6	1220.5	1662.4	1993.8	2025.2
117.5°	407.8	439.1	470.4	478.2	637.2	849.2	955.2	1154.7	1553.4	1852.5	1887.2
120°	435.1	464.5	493.9	501.2	646.6	840.6	937.5	1119.8	1484.1	1757.4	1791.2
122.5°	461.7	491.4	521.0	528.5	660.3	836.0	923.9	1087.9	1416.1	1662.2	1695.5
125°	502.5	529.5	556.6	563.4	678.7	832.3	909.2	1048.5	1327.2	1536.3	1567.0
127.5°	535.6	562.9	590.2	597.0	696.9	830.1	896.7	1016.4	1255.7	1435.2	1461.2
130°	553.3	582.8	612.1	619.5	710.3	831.4	892.0	998.5	1211.6	1371.4	1395.3
132.5°	571.6	601.0	630.5	637.8	721.2	832.3	887.8	983.2	1174.0	1317.0	1338.4
135°	598.8	625.6	652.4	659.1	733.0	831.5	880.8	960.7	1120.4	1240.2	1258.7
137.5°	626.6	653.1	679.7	686.3	750.7	836.7	879.6	947.1	1082.2	1183.4	1198.5
140°	649.6	674.1	698.5	704.6	761.5	837.5	875.4	933.7	1050.5	1137.9	1152.1
142.5°	667.4	689.9	712.6	718.2	770.6	840.5	875.4	926.7	1029.1	1106.0	1118.1
145°	694.5	714.2	733.9	738.9	782.5	840.5	869.6	911.5	995.3	1058.1	1067.3
147.5°	721.8	740.9	760.1	764.9	799.8	846.3	869.6	902.6	968.5	1017.9	1025.6
150°	739.5	756.8	774.2	778.5	808.9	849.3	869.6	897.4	953.0	994.8	1001.0
152.5°	757.8	770.9	784.1	787.4	814.8	851.3	869.6	893.4	940.9	976.6	981.2
155°	785.0	794.7	804.5	806.9	827.8	855.6	869.6	888.5	926.3	954.7	957.7
157.5°	805.1	814.6	824.0	826.4	840.8	860.0	869.6	884.3	913.6	935.7	937.9
160°	818.7	826.1	833.4	835.3	846.7	861.9	869.6	882.2	907.3	926.3	927.5
162.5°	832.3	837.8	843.4	844.7	853.0	864.0	869.6	880.2	901.4	917.4	918.5
165°	847.1	852.1	857.1	858.3	862.0	867.1	869.6	877.2	892.4	903.8	905.0
167.5°	860.7	863.0	865.4	865.9	869.1	873.3	875.4	880.4	890.4	897.9	898.4
170°	869.6	871.9	874.3	874.8	875.0	875.3	875.4	880.4	890.4	897.9	897.9
172.5°	874.3	874.7	875.3	875.4	875.4	875.4	875.4	879.3	887.3	893.2	892.7
175°	880.8	880.8	880.8	880.8	878.9	876.6	875.4	877.9	883.0	886.7	886.7
177.5°	880.8	880.8	880.8	880.8	879.4	877.6	876.7	878.7	882.6	885.5	885.0
180°	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1178.5	1178.5
2.5°	1258.0	1250.4
5°	1618.0	1625.6
7.5°	2178.8	2175.0
10°	2709.3	2743.3
12.5°	3095.8	3103.4
15°	3330.7	3345.9
17.5°	3421.6	3425.4
20°	3425.4	3417.9
22.5°	3383.8	3376.2
25°	3334.5	3330.7
27.5°	3289.0	3292.8
30°	3270.1	3281.5
32.5°	3270.1	3289.0
35°	3277.6	3296.6
37.5°	3273.8	3296.6
40°	3258.7	3285.2
42.5°	3217.0	3236.0
45°	3152.6	3175.4
47.5°	3069.2	3084.4
50°	2963.1	2978.3
52.5°	2830.5	2834.3
55°	2671.4	2686.6
57.5°	2500.9	2504.6
60°	2311.4	2322.8
62.5°	2110.6	2110.6
65°	1898.4	1906.0
67.5°	1678.6	1697.6
70°	1455.0	1458.9
72.5°	1235.2	1235.2
75°	1007.9	1011.7
77.5°	792.0	792.0
80°	587.4	591.1
82.5°	405.4	413.0
85°	253.9	253.9
87.5°	117.5	106.1
90°	22.5	22.5
92.5°	90.0	72.1
95°	313.6	259.5
97.5°	751.4	648.5
100°	1082.7	960.0
102.5°	1408.5	1303.4
105°	1824.0	1767.5
107.5°	2096.0	2109.7
110°	2199.8	2258.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2209.1	2299.5
115°	2150.5	2275.9
117.5°	2026.2	2165.2
120°	1926.2	2061.2
122.5°	1828.7	1961.9
125°	1689.6	1812.4
127.5°	1564.6	1668.1
130°	1491.0	1586.6
132.5°	1424.1	1509.7
135°	1332.5	1406.3
137.5°	1259.0	1319.4
140°	1208.5	1265.0
142.5°	1166.8	1215.4
145°	1104.1	1140.9
147.5°	1056.0	1086.5
150°	1025.7	1050.5
152.5°	999.9	1018.5
155°	970.1	982.5
157.5°	946.5	955.2
160°	932.6	937.5
162.5°	923.3	928.1
165°	910.1	915.1
167.5°	900.6	902.7
170°	897.9	897.9
172.5°	890.9	889.1
175°	886.7	886.7
177.5°	882.9	880.8
180°	880.8	880.8



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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	6.49	7.51	7.33	8.38	9.48	19.68	20.70	20.52	21.58	22.67
	3H	7.20	8.13	8.06	9.01	10.13	21.54	22.46	22.39	23.34	24.46
	4H	7.51	8.38	8.38	9.27	10.40	22.19	23.07	23.06	23.95	25.08
	6H	7.77	8.58	8.65	9.47	10.61	22.64	23.44	23.52	24.34	25.48
	8H	7.84	8.61	8.73	9.52	10.67	22.76	23.53	23.66	24.45	25.59
	12H	7.86	8.60	8.76	9.51	10.68	22.84	23.57	23.74	24.48	25.65
4H	2H	13.73	14.60	14.61	15.49	16.62	19.97	20.85	20.85	21.73	22.86
	3H	15.31	16.04	16.20	16.96	18.11	22.04	22.77	22.93	23.69	24.84
	4H	15.41	16.08	16.31	17.00	18.17	22.82	23.48	23.72	24.40	25.57
	6H	15.43	16.01	16.35	16.95	18.12	23.37	23.95	24.28	24.89	26.06
	8H	15.42	15.96	16.33	16.89	18.08	23.54	24.08	24.46	25.01	26.20
	12H	15.38	15.87	16.32	16.82	18.01	23.64	24.13	24.58	25.08	26.28
8H	4H	16.88	17.42	17.79	18.35	19.54	22.89	23.43	23.81	24.37	25.55
	6H	17.13	17.58	18.07	18.55	19.74	23.53	23.98	24.48	24.96	26.14
	8H	17.15	17.55	18.10	18.51	19.71	23.76	24.16	24.71	25.12	26.32
	12H	17.12	17.47	18.08	18.43	19.68	23.91	24.26	24.87	25.22	26.47
12H	4H	17.03	17.52	17.97	18.47	19.66	22.85	23.34	23.79	24.29	25.49
	6H	17.39	17.79	18.34	18.75	19.96	23.52	23.92	24.47	24.88	26.09
	8H	17.47	17.82	18.42	18.78	20.03	23.76	24.11	24.72	25.07	26.32