

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: P936817

Luminaire Tested: SQ4-FB-050U-100D-840-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936817
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-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

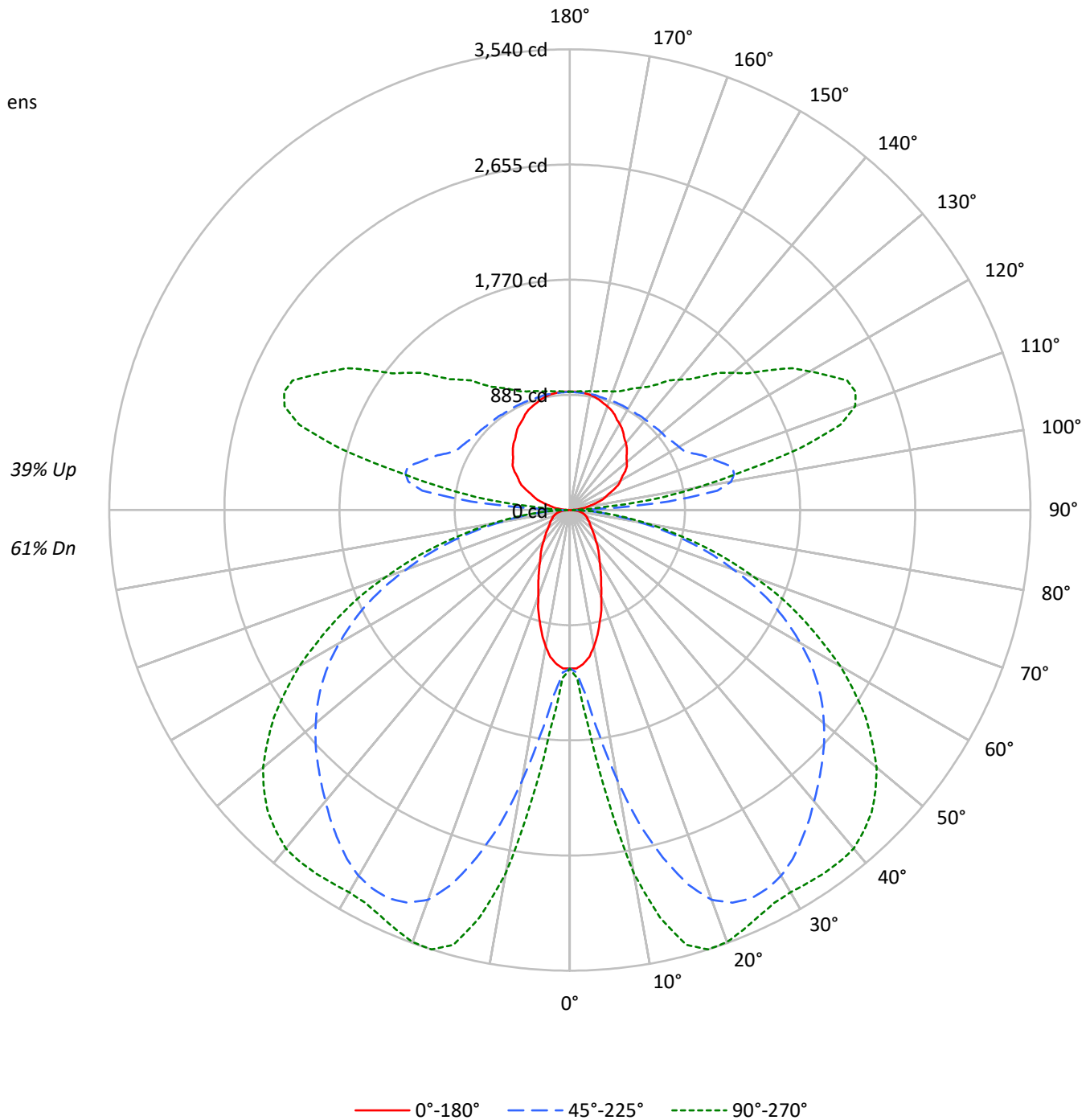
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15325.8 lumens
Efficiency: N/A
Efficacy: 113.0 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	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°	3767	3767	3767
5°	3682	4355	5063
10°	3341	6350	8394
15°	2840	8298	10136
20°	2313	9618	10330
25°	1930	10067	10120
30°	1628	10134	10101
35°	1440	9968	10362
40°	1256	9752	10632
45°	1138	9595	10674
50°	1045	9454	10497
55°	1002	9246	10032
60°	1027	8844	9297
65°	1070	8231	8288
70°	1142	7183	7002
75°	1271	5862	5464
80°	1398	4071	3682
85°	1267	2163	1885

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.5	1.0
10°-20°	698.2	4.6
20°-30°	1221.3	8.0
30°-40°	1572.2	10.3
40°-50°	1756.0	11.5
50°-60°	1681.9	11.0
60°-70°	1332.9	8.7
70°-80°	783.8	5.1
80°-90°	221.2	1.4
90°-100°	443.7	2.9
100°-110°	1166.5	7.6
110°-120°	1209.5	7.9
120°-130°	970.2	6.3
130°-140°	761.3	5.0
140°-150°	584.3	3.8
150°-160°	420.8	2.7
160°-170°	257.5	1.7
170°-180°	87.0	0.6
0°-30°	2077.0	13.6
0°-40°	3649.2	23.8
0°-60°	7087.1	46.2
0°-90°	9425.0	61.5
90°-120°	2819.7	18.4
90°-150°	5135.5	33.5
90°-180°	5901.0	38.5
0°-180°	15325.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1187	1273	1433	1621	1680	110
15°	889	1641	2765	3352	3458	247
25°	568	1860	3293	3438	3442	262
35°	384	1778	3102	3278	3407	240
45°	262	1418	2741	3141	3282	203
55°	188	901	2326	2702	2776	171
65°	149	478	1727	1942	1970	147
75°	110	294	948	1042	1046	115
85°	39	90	235	258	262	42
90°	6	17	46	23	23	8
95°	59	230	764	394	268	65
105°	210	318	1290	1958	1827	223
115°	373	453	1033	2061	2352	369
125°	519	582	940	1588	1873	461
135°	619	681	910	1282	1453	479
145°	718	764	899	1094	1179	450
155°	811	834	899	987	1015	373
165°	876	887	899	934	946	247
175°	910	910	905	916	916	86
180°	910	910	910	910	910	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9
2.5°	1217.9	1217.9	1225.7	1229.7	1237.5	1241.4	1249.2	1257.0	1280.5	1284.5	1292.3
5°	1186.6	1202.2	1253.2	1272.7	1327.6	1402.0	1433.3	1484.2	1589.9	1621.2	1640.8
7.5°	1139.6	1174.8	1300.1	1331.4	1468.5	1664.3	1746.6	1856.2	2024.6	2106.8	2173.4
10°	1065.2	1139.6	1362.7	1437.1	1660.4	1958.0	2110.8	2263.5	2518.0	2631.5	2674.6
12.5°	983.0	1104.3	1429.3	1531.2	1852.3	2286.9	2471.0	2639.4	2929.2	3082.0	3105.4
15°	888.9	1053.4	1492.0	1640.8	2055.9	2561.1	2764.7	2972.3	3242.5	3352.1	3379.6
17.5°	806.7	1014.3	1550.8	1707.4	2212.5	2807.8	3015.4	3187.7	3406.9	3481.3	3501.0
20°	704.8	951.6	1589.9	1793.5	2377.0	2987.9	3187.7	3320.8	3469.6	3516.6	3524.4
22.5°	630.4	885.1	1613.4	1824.8	2486.7	3097.6	3265.9	3371.7	3473.5	3489.2	3493.1
25°	567.8	810.7	1609.5	1860.1	2580.7	3164.2	3293.4	3371.7	3430.4	3438.2	3438.2
27.5°	509.1	728.4	1593.8	1867.9	2651.2	3179.8	3281.6	3336.5	3363.8	3379.6	3379.6
30°	458.1	650.1	1554.6	1852.3	2682.5	3164.2	3246.4	3273.8	3301.2	3324.7	3336.5
32.5°	419.0	575.6	1495.9	1821.0	2686.4	3125.0	3183.7	3199.4	3238.6	3293.4	3313.0
35°	383.7	501.2	1429.3	1777.9	2662.9	3062.3	3101.5	3117.1	3195.5	3277.7	3305.2
37.5°	348.6	446.5	1343.2	1703.5	2627.7	2987.9	3015.4	3042.7	3164.2	3262.1	3293.4
40°	313.3	399.4	1241.4	1621.2	2572.9	2897.9	2921.3	2964.4	3125.0	3238.6	3269.9
42.5°	285.8	360.3	1131.8	1535.1	2502.3	2796.0	2831.3	2894.0	3078.0	3199.4	3234.6
45°	262.4	321.1	1014.3	1417.6	2412.3	2690.3	2741.2	2827.4	3023.2	3140.7	3172.0
47.5°	238.9	293.7	892.9	1296.3	2314.4	2584.6	2651.2	2749.0	2948.8	3062.3	3089.8
50°	219.3	266.3	771.4	1167.0	2208.7	2471.0	2549.3	2651.2	2854.8	2960.5	2995.8
52.5°	203.6	242.8	657.9	1037.8	2087.2	2353.5	2443.6	2549.3	2741.2	2843.1	2866.6
55°	188.0	223.2	560.0	900.7	1962.0	2228.2	2326.1	2427.9	2615.9	2702.1	2717.7
57.5°	180.1	207.6	477.8	771.4	1828.8	2087.2	2196.9	2290.9	2467.1	2533.6	2549.3
60°	168.4	195.8	415.1	661.8	1683.8	1954.1	2048.1	2142.1	2290.9	2345.7	2357.5
62.5°	156.6	188.0	368.1	556.0	1535.1	1797.5	1891.4	1977.6	2103.0	2142.1	2157.7
65°	148.8	180.1	332.9	477.8	1382.4	1633.0	1726.9	1801.4	1903.2	1942.3	1950.2
67.5°	141.0	172.3	305.5	411.2	1229.7	1468.5	1539.0	1609.5	1687.8	1726.9	1730.9
70°	129.2	164.5	282.0	364.2	1073.0	1280.5	1339.3	1413.7	1476.4	1495.9	1507.7
72.5°	121.4	152.7	266.3	328.9	912.4	1100.4	1155.3	1198.3	1253.2	1272.7	1272.7
75°	109.7	137.0	250.7	293.7	747.9	900.7	947.7	990.8	1033.8	1041.6	1029.9
77.5°	97.9	121.4	215.4	246.7	583.5	712.7	751.9	775.4	810.7	818.5	822.4
80°	82.2	105.7	168.4	191.9	423.0	524.7	552.2	571.8	603.1	603.1	610.9
82.5°	62.6	82.2	121.4	137.0	285.8	360.3	383.7	395.5	415.1	415.1	415.1
85°	39.1	50.9	78.3	90.1	172.3	219.3	234.9	238.9	254.5	258.5	258.5
87.5°	19.6	27.4	50.9	54.8	90.1	113.5	113.5	121.4	121.4	117.5	113.5
90°	6.1	11.0	15.9	17.1	26.9	39.9	46.4	41.3	30.9	23.2	23.2
92.5°	24.4	65.9	107.5	117.9	165.7	229.5	261.4	229.1	164.5	116.1	111.4
95°	58.7	134.7	210.7	229.7	407.8	645.5	764.2	681.9	517.4	394.0	380.0
97.5°	101.4	168.5	235.5	252.3	549.4	945.5	1143.6	1091.6	987.6	909.7	883.1
100°	134.4	195.2	256.0	271.2	600.9	1040.5	1260.3	1264.0	1271.7	1277.4	1245.7
102.5°	162.5	219.2	275.9	290.2	624.5	1070.4	1293.3	1359.5	1492.0	1591.4	1564.2
105°	210.1	258.2	306.2	318.2	642.0	1073.8	1289.6	1438.1	1735.1	1957.9	1943.3
107.5°	259.1	303.8	348.7	359.8	645.4	1026.0	1216.3	1423.5	1837.9	2148.6	2152.2
110°	292.1	332.5	373.0	383.0	640.4	983.7	1155.3	1386.9	1850.0	2197.4	2212.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	324.4	362.9	401.4	411.1	640.6	946.6	1099.6	1336.7	1810.7	2166.3	2189.6
115°	373.3	408.8	444.4	453.3	646.5	904.2	1033.1	1261.4	1718.0	2060.6	2093.0
117.5°	421.5	453.8	486.1	494.2	658.5	877.6	987.2	1193.3	1605.4	1914.5	1950.4
120°	449.6	480.1	510.4	518.0	668.3	868.7	968.9	1157.2	1533.8	1816.2	1851.1
122.5°	477.1	507.8	538.5	546.2	682.4	864.0	954.8	1124.3	1463.5	1717.8	1752.2
125°	519.3	547.3	575.2	582.2	701.4	860.2	939.6	1083.6	1371.6	1587.7	1619.4
127.5°	553.5	581.7	610.0	617.0	720.3	857.9	926.7	1050.4	1297.7	1483.3	1510.1
130°	571.9	602.3	632.6	640.2	734.1	859.3	921.9	1032.0	1252.2	1417.3	1442.0
132.5°	590.7	621.2	651.6	659.2	745.3	860.2	917.6	1016.2	1213.3	1361.1	1383.2
135°	618.9	646.5	674.2	681.1	757.5	859.4	910.2	992.8	1157.9	1281.7	1300.8
137.5°	647.5	675.0	702.5	709.3	775.9	864.7	909.1	978.8	1118.4	1223.0	1238.7
140°	671.3	696.6	721.8	728.2	787.0	865.5	904.7	965.0	1085.6	1176.0	1190.6
142.5°	689.7	713.0	736.5	742.3	796.4	868.6	904.7	957.7	1063.6	1143.0	1155.6
145°	717.8	738.1	758.5	763.6	808.7	868.6	898.7	942.0	1028.6	1093.5	1103.0
147.5°	745.9	765.7	785.6	790.5	826.6	874.7	898.7	932.8	1000.9	1052.0	1059.9
150°	764.2	782.1	800.1	804.5	835.9	877.7	898.7	927.4	984.9	1028.1	1034.5
152.5°	783.2	796.7	810.4	813.7	842.1	879.8	898.7	923.3	972.4	1009.2	1014.1
155°	811.2	821.3	831.4	833.9	855.5	884.3	898.7	918.2	957.3	986.6	989.8
157.5°	832.1	841.9	851.6	854.0	868.9	888.8	898.7	913.9	944.2	967.1	969.3
160°	846.1	853.7	861.3	863.2	875.1	890.8	898.7	911.7	937.7	957.3	958.6
162.5°	860.2	865.9	871.6	873.0	881.6	893.0	898.7	909.7	931.6	948.1	949.3
165°	875.5	880.6	885.7	887.0	890.9	896.1	898.7	906.6	922.3	934.1	935.3
167.5°	889.5	891.9	894.3	894.9	898.2	902.5	904.7	909.8	920.2	927.9	928.5
170°	898.7	901.1	903.5	904.1	904.3	904.6	904.7	909.8	920.2	927.9	927.9
172.5°	903.5	904.0	904.6	904.7	904.7	904.7	904.7	908.8	917.0	923.1	922.6
175°	910.2	910.2	910.2	910.2	908.4	905.9	904.7	907.3	912.5	916.4	916.4
177.5°	910.2	910.2	910.2	910.2	908.9	907.0	906.0	908.1	912.1	915.2	914.6
180°	910.2	910.2	910.2	910.2	910.2	910.2	910.2	910.2	910.2	910.2	910.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1217.9	1217.9
2.5°	1300.1	1292.3
5°	1672.2	1680.0
7.5°	2251.8	2247.8
10°	2800.0	2835.2
12.5°	3199.4	3207.2
15°	3442.2	3457.9
17.5°	3536.2	3540.1
20°	3540.1	3532.3
22.5°	3497.0	3489.2
25°	3446.1	3442.2
27.5°	3399.1	3403.1
30°	3379.6	3391.3
32.5°	3379.6	3399.1
35°	3387.4	3406.9
37.5°	3383.4	3406.9
40°	3367.8	3395.2
42.5°	3324.7	3344.3
45°	3258.1	3281.6
47.5°	3172.0	3187.7
50°	3062.3	3078.0
52.5°	2925.3	2929.2
55°	2760.8	2776.5
57.5°	2584.6	2588.5
60°	2388.8	2400.5
62.5°	2181.2	2181.2
65°	1962.0	1969.8
67.5°	1734.8	1754.4
70°	1503.7	1507.7
72.5°	1276.6	1276.6
75°	1041.6	1045.6
77.5°	818.5	818.5
80°	607.0	610.9
82.5°	419.0	426.8
85°	262.4	262.4
87.5°	121.4	109.7
90°	23.2	23.2
92.5°	93.0	74.5
95°	324.1	268.1
97.5°	776.6	670.2
100°	1118.9	992.1
102.5°	1455.6	1347.0
105°	1885.0	1826.6
107.5°	2166.2	2180.3
110°	2273.4	2334.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2283.1	2376.4
115°	2222.5	2352.0
117.5°	2094.1	2237.7
120°	1990.7	2130.2
122.5°	1889.9	2027.6
125°	1746.2	1873.1
127.5°	1617.0	1724.0
130°	1540.9	1639.7
132.5°	1471.7	1560.2
135°	1377.1	1453.3
137.5°	1301.1	1363.5
140°	1248.9	1307.3
142.5°	1205.9	1256.0
145°	1141.0	1179.1
147.5°	1091.3	1122.9
150°	1060.0	1085.6
152.5°	1033.3	1052.6
155°	1002.6	1015.4
157.5°	978.2	987.2
160°	963.8	968.9
162.5°	954.2	959.2
165°	940.6	945.7
167.5°	930.7	932.9
170°	927.9	927.9
172.5°	920.7	918.8
175°	916.4	916.4
177.5°	912.4	910.2
180°	910.2	910.2



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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	6.60	7.63	7.44	8.50	9.59	19.79	20.82	20.64	21.69	22.78
	3H	7.32	8.24	8.17	9.12	10.24	21.65	22.57	22.51	23.45	24.57
	4H	7.62	8.50	8.50	9.39	10.52	22.31	23.18	23.18	24.07	25.20
	6H	7.88	8.69	8.77	9.58	10.73	22.75	23.56	23.63	24.45	25.60
	8H	7.96	8.73	8.85	9.64	10.78	22.88	23.65	23.77	24.56	25.70
	12H	7.98	8.71	8.88	9.62	10.79	22.95	23.69	23.85	24.60	25.77
4H	2H	13.84	14.72	14.72	15.61	16.74	20.09	20.96	20.96	21.85	22.98
	3H	15.43	16.16	16.31	17.08	18.22	22.15	22.89	23.04	23.80	24.95
	4H	15.53	16.20	16.43	17.11	18.28	22.93	23.60	23.83	24.51	25.69
	6H	15.55	16.13	16.46	17.07	18.24	23.48	24.06	24.40	25.00	26.17
	8H	15.53	16.07	16.45	17.01	18.19	23.65	24.20	24.57	25.13	26.32
	12H	15.49	15.98	16.43	16.94	18.13	23.76	24.25	24.70	25.20	26.39
8H	4H	16.99	17.53	17.91	18.47	19.65	23.00	23.55	23.92	24.48	25.67
	6H	17.24	17.69	18.19	18.67	19.85	23.65	24.10	24.59	25.07	26.26
	8H	17.26	17.66	18.21	18.62	19.83	23.87	24.27	24.83	25.24	26.44
	12H	17.24	17.59	18.20	18.55	19.80	24.03	24.38	24.99	25.34	26.59
12H	4H	17.14	17.63	18.08	18.58	19.78	22.97	23.46	23.90	24.41	25.60
	6H	17.50	17.90	18.46	18.87	20.07	23.63	24.03	24.59	25.00	26.20
	8H	17.58	17.93	18.54	18.89	20.14	23.87	24.22	24.83	25.18	26.43