

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: P936892

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936892
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

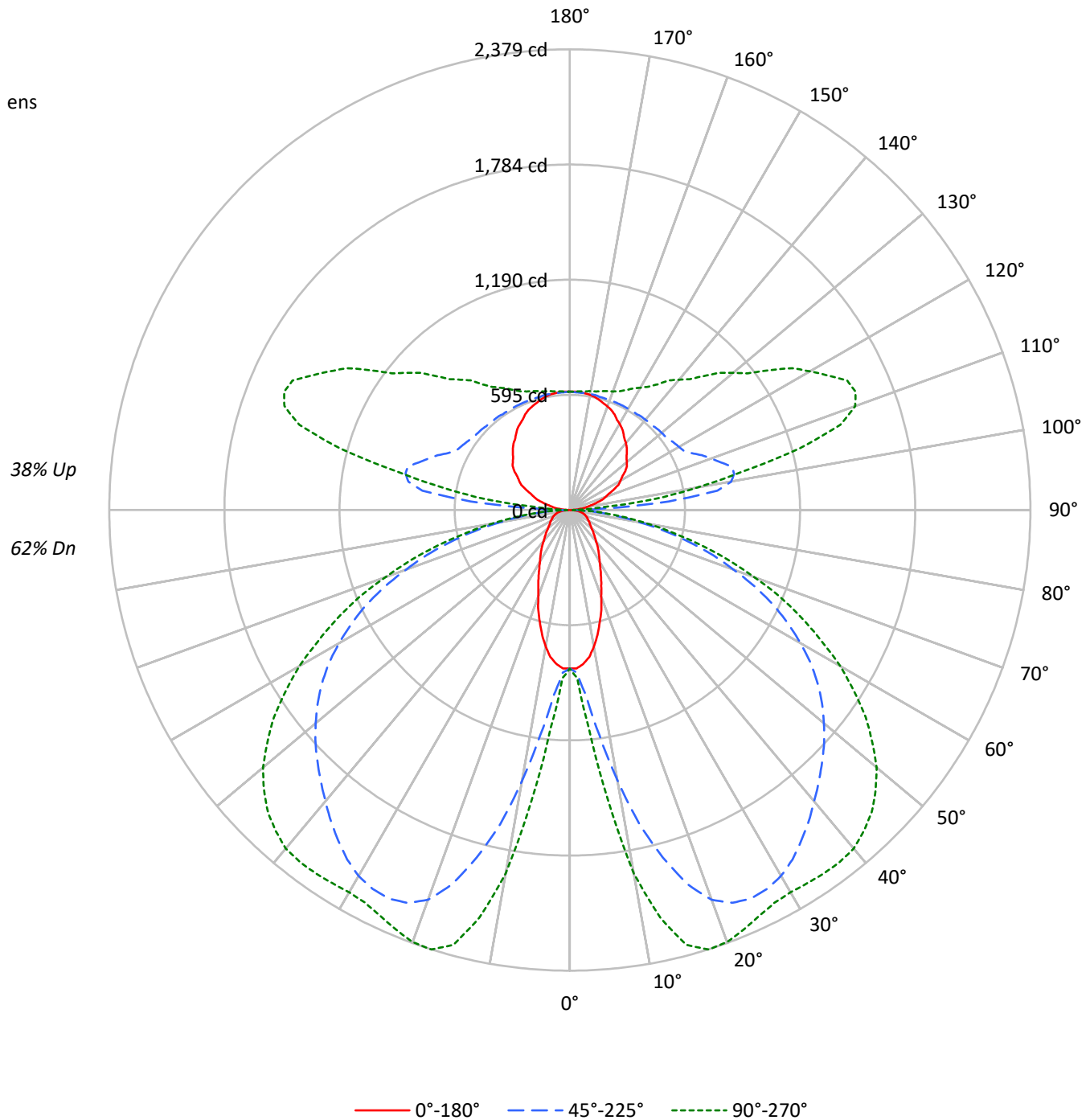
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10300.7 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 90.4
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

TEST NUMBER: P936892
CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P936892

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

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	62
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°	3798	3798	3798
5°	3710	4389	5105
10°	3365	6399	8463
15°	2860	8360	10220
20°	2329	9687	10415
25°	1943	10138	10203
30°	1638	10202	10184
35°	1449	10032	10447
40°	1262	9812	10720
45°	1143	9651	10762
50°	1048	9506	10583
55°	1004	9293	10115
60°	1027	8885	9374
65°	1069	8264	8356
70°	1140	7208	7058
75°	1262	5876	5509
80°	1380	4075	3713
85°	1225	2163	1900

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10762 cd/sqm



TEST NUMBER: P936892

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	1.0
10°-20°	469.3	4.6
20°-30°	820.9	8.0
30°-40°	1056.7	10.3
40°-50°	1180.3	11.5
50°-60°	1130.4	11.0
60°-70°	895.9	8.7
70°-80°	526.8	5.1
80°-90°	148.7	1.4
90°-100°	298.2	2.9
100°-110°	784.0	7.6
110°-120°	812.9	7.9
120°-130°	652.0	6.3
130°-140°	511.6	5.0
140°-150°	392.7	3.8
150°-160°	282.8	2.7
160°-170°	173.0	1.7
170°-180°	58.5	0.6
0°-30°	1396.1	13.6
0°-40°	2452.8	23.8
0°-60°	4763.5	46.2
0°-90°	6334.9	61.5
90°-120°	1895.1	18.4
90°-150°	3451.4	33.5
90°-180°	3966.0	38.5
0°-180°	10300.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	819	819	819	819	819	
5°	798	856	963	1090	1129	74
15°	598	1103	1858	2253	2324	166
25°	382	1250	2214	2311	2314	176
35°	258	1195	2085	2203	2290	161
45°	176	953	1842	2111	2206	136
55°	126	605	1563	1816	1866	115
65°	100	321	1161	1306	1324	99
75°	74	197	637	700	703	77
85°	26	61	158	174	176	28
90°	4	12	31	16	16	5
95°	39	154	514	265	180	44
105°	141	214	867	1316	1228	150
115°	251	305	694	1385	1581	248
125°	349	391	632	1067	1259	310
135°	416	458	612	861	977	322
145°	482	513	604	735	792	302
155°	545	560	604	663	682	251
165°	588	596	604	628	636	166
175°	612	612	608	616	616	58
180°	612	612	612	612	612	



TEST NUMBER: P936892

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	818.6	818.6	818.6	818.6	818.6	818.6	818.6	818.6	818.6	818.6	818.6
2.5°	818.6	818.6	823.9	826.5	831.8	834.3	839.6	844.9	860.7	863.3	868.6
5°	797.5	808.1	842.3	855.5	892.3	942.3	963.3	997.6	1068.6	1089.7	1102.9
7.5°	765.9	789.6	873.9	894.9	987.0	1118.6	1173.9	1247.6	1360.8	1416.1	1460.8
10°	715.9	765.9	916.0	966.0	1116.0	1316.0	1418.7	1521.4	1692.4	1768.8	1797.7
12.5°	660.6	742.2	960.7	1029.2	1245.0	1537.1	1660.8	1774.1	1968.8	2071.5	2087.2
15°	597.5	708.1	1002.9	1102.9	1381.9	1721.4	1858.2	1997.8	2179.3	2253.1	2271.5
17.5°	542.2	681.8	1042.3	1147.6	1487.1	1887.2	2026.8	2142.5	2289.9	2339.9	2353.1
20°	473.8	639.6	1068.6	1205.5	1597.7	2008.3	2142.5	2232.0	2332.0	2363.6	2368.9
22.5°	423.8	594.8	1084.4	1226.6	1671.4	2082.0	2195.2	2266.2	2334.7	2345.2	2347.9
25°	381.7	544.8	1081.8	1250.3	1734.5	2126.8	2213.6	2266.2	2305.7	2311.0	2311.0
27.5°	342.1	489.5	1071.3	1255.6	1781.9	2137.3	2205.7	2242.6	2261.0	2271.5	2271.5
30°	308.0	436.9	1044.9	1245.0	1803.0	2126.8	2182.0	2200.5	2218.9	2234.6	2242.6
32.5°	281.7	386.9	1005.5	1223.9	1805.6	2100.5	2139.9	2150.5	2176.8	2213.6	2226.8
35°	258.0	336.9	960.7	1195.0	1789.8	2058.3	2084.6	2095.2	2147.8	2203.1	2221.5
37.5°	234.3	300.1	902.8	1145.0	1766.1	2008.3	2026.8	2045.2	2126.8	2192.5	2213.6
40°	210.6	268.5	834.3	1089.7	1729.3	1947.8	1963.5	1992.5	2100.5	2176.8	2197.8
42.5°	192.1	242.1	760.6	1031.8	1681.9	1879.4	1903.1	1945.1	2068.8	2150.5	2174.2
45°	176.4	215.8	681.8	952.8	1621.4	1808.2	1842.5	1900.4	2031.9	2110.9	2132.0
47.5°	160.6	197.4	600.1	871.2	1555.6	1737.2	1781.9	1847.8	1981.9	2058.3	2076.8
50°	147.4	179.0	518.5	784.4	1484.5	1660.8	1713.5	1781.9	1918.8	1989.9	2013.5
52.5°	136.9	163.1	442.2	697.5	1402.9	1581.8	1642.4	1713.5	1842.5	1910.9	1926.7
55°	126.3	150.0	376.4	605.4	1318.7	1497.7	1563.4	1631.9	1758.2	1816.1	1826.7
57.5°	121.1	139.5	321.1	518.5	1229.2	1402.9	1476.6	1539.8	1658.2	1703.0	1713.5
60°	113.1	131.6	279.0	444.8	1131.9	1313.4	1376.6	1439.7	1539.8	1576.7	1584.5
62.5°	105.3	126.3	247.4	373.8	1031.8	1208.1	1271.3	1329.3	1413.4	1439.7	1450.3
65°	100.0	121.1	223.7	321.1	929.2	1097.6	1160.7	1210.7	1279.2	1305.6	1310.8
67.5°	94.7	115.8	205.3	276.4	826.5	987.0	1034.4	1081.8	1134.4	1160.7	1163.4
70°	86.9	110.6	189.5	244.8	721.2	860.7	900.2	950.2	992.3	1005.5	1013.3
72.5°	81.6	102.7	179.0	221.1	613.2	739.6	776.5	805.5	842.3	855.5	855.5
75°	73.7	92.1	168.4	197.4	502.8	605.4	636.9	665.9	694.9	700.2	692.2
77.5°	65.8	81.6	144.7	165.8	392.2	479.1	505.4	521.1	544.8	550.1	552.8
80°	55.3	71.1	113.1	129.0	284.3	352.7	371.1	384.3	405.4	405.4	410.7
82.5°	42.1	55.3	81.6	92.1	192.1	242.1	258.0	265.8	279.0	279.0	279.0
85°	26.3	34.3	52.7	60.6	115.8	147.4	158.0	160.6	171.1	173.7	173.7
87.5°	13.1	18.4	34.3	36.9	60.6	76.3	76.3	81.6	81.6	79.0	76.3
90°	4.1	7.4	10.7	11.5	18.0	26.8	31.2	27.7	20.8	15.6	15.6
92.5°	16.4	44.3	72.3	79.3	111.5	154.3	175.7	154.0	110.6	78.0	74.9
95°	39.4	90.5	141.6	154.4	274.1	433.8	513.6	458.4	347.8	264.8	255.5
97.5°	68.1	113.1	158.3	169.5	369.2	635.4	768.6	733.7	663.7	611.3	593.4
100°	90.3	131.2	172.0	182.3	403.9	699.3	847.0	849.6	854.7	858.5	837.1
102.5°	109.3	147.4	185.5	195.0	419.7	719.4	869.2	913.7	1002.8	1069.5	1051.3
105°	141.2	173.5	205.9	213.9	431.6	721.7	866.7	966.5	1166.2	1315.9	1306.1
107.5°	174.1	204.2	234.3	241.8	433.7	689.5	817.4	956.7	1235.1	1444.0	1446.4
110°	196.2	223.4	250.7	257.5	430.5	661.0	776.4	932.1	1243.3	1476.8	1487.0



TEST NUMBER: P936892

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	218.0	243.9	269.8	276.3	430.6	636.2	739.0	898.3	1216.9	1455.9	1471.6
115°	250.9	274.8	298.7	304.7	434.6	607.8	694.3	847.8	1154.7	1384.8	1406.6
117.5°	283.3	305.0	326.7	332.2	442.6	589.8	663.4	802.0	1079.0	1286.7	1310.8
120°	302.2	322.6	343.1	348.2	449.2	583.9	651.2	777.7	1030.8	1220.6	1244.0
122.5°	320.6	341.2	361.8	367.0	458.6	580.7	641.7	755.7	983.6	1154.6	1177.7
125°	349.0	367.7	386.5	391.2	471.3	578.1	631.5	728.3	921.9	1067.1	1088.4
127.5°	372.0	390.9	409.9	414.6	484.1	576.6	622.8	706.0	872.2	996.9	1014.8
130°	384.3	404.7	425.2	430.3	493.3	577.5	619.5	693.5	841.5	952.5	969.1
132.5°	397.0	417.4	437.9	443.0	500.9	578.1	616.7	683.0	815.4	914.7	929.6
135°	415.9	434.6	453.1	457.8	509.1	577.5	611.7	667.2	778.2	861.3	874.2
137.5°	435.3	453.7	472.1	476.7	521.4	581.1	610.9	657.9	751.7	822.0	832.5
140°	451.2	468.2	485.2	489.4	529.0	581.7	608.1	648.6	729.6	790.3	800.1
142.5°	463.5	479.2	494.9	498.8	535.3	583.8	608.1	643.6	714.8	768.2	776.7
145°	482.5	496.1	509.9	513.2	543.5	583.9	604.0	633.1	691.3	734.9	741.3
147.5°	501.3	514.6	528.0	531.3	555.5	587.8	604.0	626.9	672.6	707.0	712.2
150°	513.6	525.7	537.7	540.7	561.8	589.9	604.0	623.3	662.0	691.0	695.3
152.5°	526.4	535.5	544.6	546.9	565.9	591.3	604.0	620.5	653.5	678.3	681.6
155°	545.2	552.0	558.8	560.4	575.0	594.3	604.0	617.1	643.3	663.0	665.2
157.5°	559.2	565.7	572.3	574.0	584.0	597.3	604.0	614.1	634.6	649.9	651.4
160°	568.6	573.8	578.9	580.2	588.1	598.7	604.0	612.7	630.2	643.3	644.2
162.5°	578.1	582.0	585.7	586.7	592.5	600.2	604.0	611.3	626.2	637.2	638.0
165°	588.3	591.8	595.2	596.1	598.7	602.2	604.0	609.3	619.8	627.8	628.7
167.5°	597.8	599.4	601.1	601.5	603.7	606.6	608.1	611.5	618.5	623.7	624.1
170°	604.0	605.6	607.3	607.7	607.8	608.0	608.1	611.5	618.5	623.7	623.7
172.5°	607.3	607.7	608.0	608.1	608.1	608.1	608.1	610.8	616.3	620.4	620.1
175°	611.7	611.7	611.7	611.7	610.5	608.9	608.1	609.8	613.2	615.8	615.8
177.5°	611.7	611.7	611.7	611.7	610.7	609.5	608.9	610.2	612.9	615.0	614.6
180°	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7



TEST NUMBER: P936892

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	818.6	818.6
2.5°	873.9	868.6
5°	1123.9	1129.2
7.5°	1513.4	1510.8
10°	1881.9	1905.6
12.5°	2150.5	2155.7
15°	2313.6	2324.2
17.5°	2376.8	2379.4
20°	2379.4	2374.2
22.5°	2350.5	2345.2
25°	2316.3	2313.6
27.5°	2284.6	2287.3
30°	2271.5	2279.4
32.5°	2271.5	2284.6
35°	2276.8	2289.9
37.5°	2274.2	2289.9
40°	2263.6	2282.0
42.5°	2234.6	2247.8
45°	2189.9	2205.7
47.5°	2132.0	2142.5
50°	2058.3	2068.8
52.5°	1966.2	1968.8
55°	1855.6	1866.2
57.5°	1737.2	1739.8
60°	1605.6	1613.5
62.5°	1466.1	1466.1
65°	1318.7	1324.0
67.5°	1166.0	1179.2
70°	1010.7	1013.3
72.5°	858.1	858.1
75°	700.2	702.8
77.5°	550.1	550.1
80°	408.0	410.7
82.5°	281.7	286.9
85°	176.4	176.4
87.5°	81.6	73.7
90°	15.6	15.6
92.5°	62.4	50.1
95°	217.8	180.3
97.5°	521.9	450.4
100°	752.0	666.7
102.5°	978.3	905.3
105°	1266.8	1227.6
107.5°	1455.9	1465.3
110°	1527.9	1568.8



TEST NUMBER: P936892

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1534.3	1597.1
115°	1493.6	1580.7
117.5°	1407.4	1504.0
120°	1337.8	1431.7
122.5°	1270.2	1362.7
125°	1173.6	1258.8
127.5°	1086.7	1158.6
130°	1035.5	1102.0
132.5°	989.1	1048.6
135°	925.5	976.8
137.5°	874.5	916.4
140°	839.3	878.6
142.5°	810.3	844.1
145°	766.9	792.4
147.5°	733.5	754.7
150°	712.4	729.6
152.5°	694.5	707.5
155°	673.8	682.4
157.5°	657.5	663.4
160°	647.7	651.2
162.5°	641.3	644.6
165°	632.1	635.5
167.5°	625.5	627.0
170°	623.7	623.7
172.5°	618.8	617.5
175°	615.8	615.8
177.5°	613.2	611.7
180°	611.7	611.7



TEST NUMBER: P936892
 CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-8-2700K

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	6.63	7.65	7.47	8.52	9.62	19.80	20.83	20.65	21.70	22.79
	3H	7.34	8.27	8.20	9.15	10.27	21.66	22.58	22.51	23.46	24.58
	4H	7.65	8.52	8.52	9.41	10.54	22.31	23.18	23.18	24.07	25.20
	6H	7.91	8.71	8.79	9.61	10.75	22.75	23.55	23.63	24.45	25.59
	8H	7.98	8.75	8.87	9.66	10.81	22.87	23.64	23.76	24.56	25.70
	12H	8.00	8.74	8.90	9.64	10.81	22.95	23.68	23.85	24.59	25.76
4H	2H	13.86	14.73	14.74	15.62	16.75	20.10	20.97	20.97	21.86	22.99
	3H	15.44	16.18	16.33	17.09	18.24	22.16	22.89	23.05	23.81	24.96
	4H	15.54	16.21	16.44	17.13	18.30	22.93	23.60	23.83	24.52	25.69
	6H	15.56	16.14	16.48	17.08	18.26	23.48	24.06	24.40	25.00	26.17
	8H	15.55	16.09	16.46	17.02	18.21	23.65	24.19	24.57	25.12	26.31
	12H	15.51	16.00	16.45	16.95	18.15	23.75	24.24	24.69	25.19	26.38
8H	4H	17.00	17.55	17.92	18.48	19.67	23.01	23.55	23.92	24.48	25.67
	6H	17.25	17.70	18.20	18.68	19.86	23.64	24.09	24.59	25.07	26.25
	8H	17.27	17.67	18.23	18.64	19.84	23.87	24.27	24.82	25.23	26.43
	12H	17.25	17.60	18.21	18.56	19.81	24.02	24.37	24.98	25.33	26.58
12H	4H	17.16	17.65	18.09	18.60	19.79	22.97	23.46	23.91	24.41	25.60
	6H	17.51	17.91	18.47	18.88	20.08	23.63	24.03	24.58	24.99	26.20
	8H	17.59	17.94	18.55	18.90	20.15	23.87	24.22	24.83	25.18	26.43