

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: P936820

Luminaire Tested: SQ4-FB-050U-100D-840-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936820
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-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

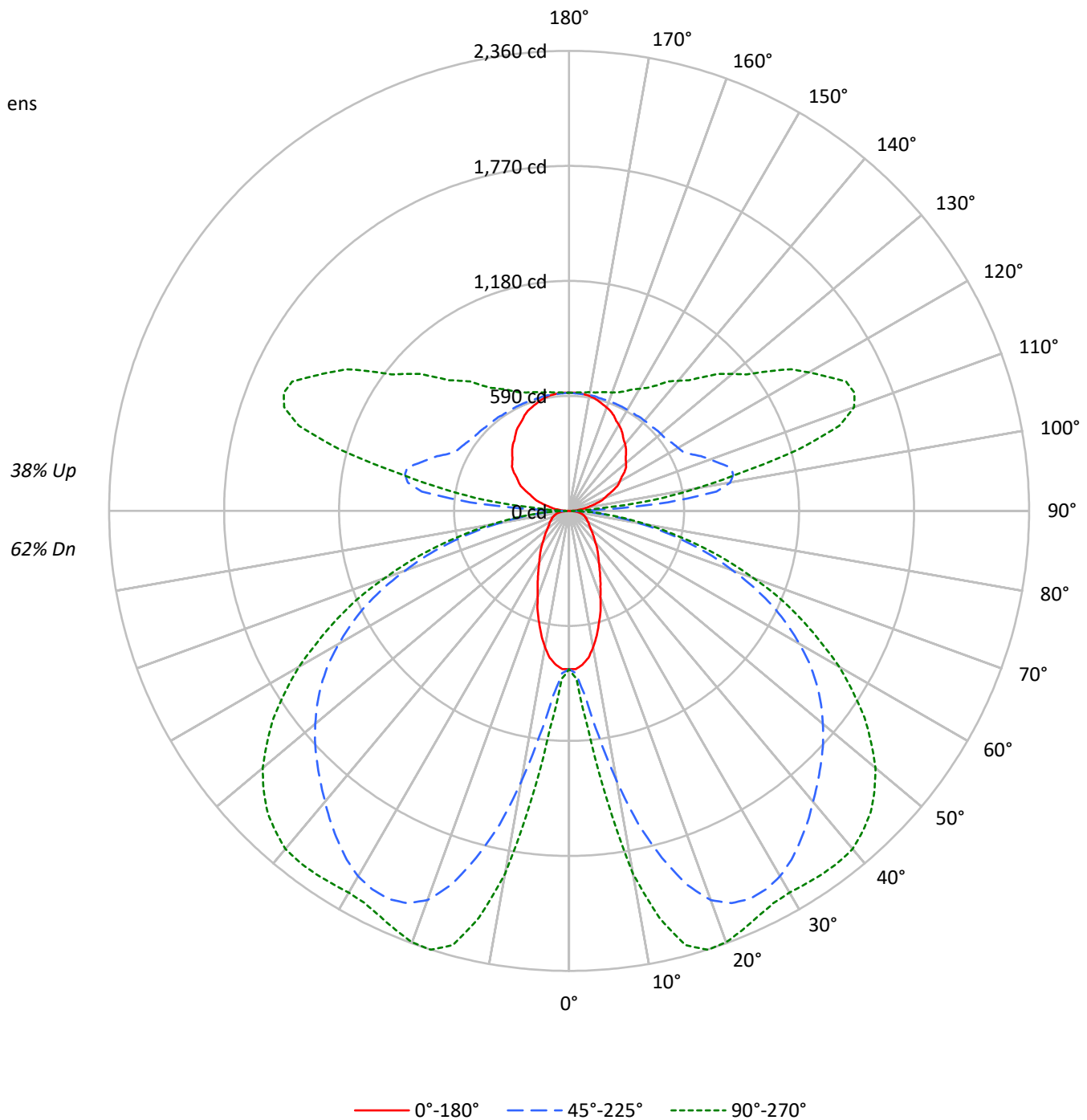
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10217.9 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: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 90.4
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

TEST NUMBER: P936820
CATALOG NUMBER: SQ4-FB-050U-100D-840-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P936820

CATALOG NUMBER: SQ4-FB-050U-100D-840-1D-UNV-STD-W-8

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	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3767	3767	3767
5°	3680	4354	5064
10°	3339	6347	8395
15°	2837	8292	10137
20°	2310	9610	10331
25°	1927	10056	10121
30°	1625	10120	10102
35°	1437	9952	10363
40°	1252	9733	10634
45°	1134	9573	10675
50°	1040	9430	10498
55°	996	9219	10033
60°	1019	8814	9299
65°	1061	8198	8289
70°	1131	7150	7002
75°	1252	5829	5464
80°	1367	4042	3683
85°	1216	2145	1885

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10675 cd/sqm



TEST NUMBER: P936820

CATALOG NUMBER: SQ4-FB-050U-100D-840-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.0	1.0
10°-20°	465.5	4.6
20°-30°	814.3	8.0
30°-40°	1048.2	10.3
40°-50°	1170.8	11.5
50°-60°	1121.4	11.0
60°-70°	888.7	8.7
70°-80°	522.6	5.1
80°-90°	147.5	1.4
90°-100°	295.8	2.9
100°-110°	777.7	7.6
110°-120°	806.4	7.9
120°-130°	646.8	6.3
130°-140°	507.5	5.0
140°-150°	389.5	3.8
150°-160°	280.5	2.7
160°-170°	171.6	1.7
170°-180°	58.0	0.6
0°-30°	1384.8	13.6
0°-40°	2433.1	23.8
0°-60°	4725.3	46.2
0°-90°	6284.0	61.5
90°-120°	1879.9	18.4
90°-150°	3423.7	33.5
90°-180°	3934.0	38.5
0°-180°	10217.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	812	812	812	812	812	
5°	791	849	956	1081	1120	73
15°	593	1094	1843	2235	2306	165
25°	379	1240	2196	2292	2295	174
35°	256	1185	2068	2185	2272	160
45°	175	945	1828	2094	2188	135
55°	125	600	1551	1802	1851	114
65°	99	318	1151	1295	1313	98
75°	73	196	632	695	697	77
85°	26	60	157	172	175	28
90°	4	11	31	16	16	5
95°	39	153	510	263	179	43
105°	140	212	860	1305	1218	149
115°	249	302	689	1374	1568	246
125°	346	388	626	1058	1249	307
135°	413	454	607	854	969	319
145°	479	509	599	729	786	300
155°	541	556	599	658	677	249
165°	584	591	599	623	630	165
175°	607	607	603	611	611	58
180°	607	607	607	607	607	



TEST NUMBER: P936820

CATALOG NUMBER: SQ4-FB-050U-100D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	812.0	812.0	812.0	812.0	812.0	812.0	812.0	812.0	812.0	812.0	812.0
2.5°	812.0	812.0	817.3	819.8	825.1	827.6	832.9	838.1	853.8	856.4	861.6
5°	791.1	801.6	835.6	848.6	885.1	934.7	955.6	989.6	1060.0	1081.0	1094.0
7.5°	759.8	783.3	866.9	887.7	979.1	1109.6	1164.5	1237.6	1349.9	1404.7	1449.1
10°	710.2	759.8	908.7	958.3	1107.1	1305.4	1407.3	1509.2	1678.8	1754.6	1783.2
12.5°	655.3	736.3	953.0	1020.9	1235.0	1524.8	1647.5	1759.8	1953.0	2054.8	2070.5
15°	592.7	702.4	994.8	1094.0	1370.8	1707.6	1843.3	1981.7	2161.8	2235.0	2253.2
17.5°	537.9	676.3	1033.9	1138.4	1475.2	1872.1	2010.5	2125.3	2271.5	2321.1	2334.2
20°	470.0	634.5	1060.0	1195.8	1584.9	1992.2	2125.3	2214.1	2313.3	2344.6	2349.9
22.5°	420.4	590.0	1075.7	1216.7	1658.0	2065.3	2177.6	2248.0	2316.0	2326.3	2329.0
25°	378.6	540.4	1073.1	1240.2	1720.6	2109.7	2195.8	2248.0	2287.2	2292.5	2292.5
27.5°	339.4	485.6	1062.7	1245.5	1767.6	2120.1	2188.0	2224.6	2242.9	2253.2	2253.2
30°	305.5	433.4	1036.5	1235.0	1788.5	2109.7	2164.5	2182.8	2201.1	2216.7	2224.6
32.5°	279.4	383.8	997.4	1214.1	1791.1	2083.6	2122.7	2133.2	2159.3	2195.8	2208.9
35°	255.9	334.2	953.0	1185.4	1775.4	2041.8	2067.9	2078.4	2130.5	2185.4	2203.6
37.5°	232.4	297.7	895.5	1135.8	1751.9	1992.2	2010.5	2028.8	2109.7	2174.9	2195.8
40°	208.9	266.4	827.6	1081.0	1715.4	1932.1	1947.7	1976.5	2083.6	2159.3	2180.1
42.5°	190.6	240.2	754.5	1023.5	1668.4	1864.3	1887.8	1929.5	2052.2	2133.2	2156.7
45°	175.0	214.1	676.3	945.1	1608.4	1793.7	1827.7	1885.1	2015.6	2094.0	2114.9
47.5°	159.3	195.8	595.3	864.2	1543.1	1723.3	1767.6	1832.9	1966.0	2041.8	2060.1
50°	146.2	177.5	514.4	778.0	1472.6	1647.5	1699.8	1767.6	1903.4	1973.9	1997.3
52.5°	135.8	161.8	438.7	691.9	1391.6	1569.1	1629.2	1699.8	1827.7	1895.6	1911.2
55°	125.3	148.8	373.4	600.5	1308.1	1485.7	1550.9	1618.8	1744.1	1801.5	1812.0
57.5°	120.1	138.4	318.5	514.4	1219.3	1391.6	1464.7	1527.4	1644.9	1689.3	1699.8
60°	112.2	130.5	276.7	441.2	1122.8	1302.9	1365.5	1428.2	1527.4	1564.0	1571.8
62.5°	104.4	125.3	245.4	370.8	1023.5	1198.4	1261.1	1318.6	1402.1	1428.2	1438.6
65°	99.2	120.1	221.9	318.5	921.7	1088.8	1151.4	1201.0	1268.9	1295.1	1300.3
67.5°	94.0	114.9	203.6	274.2	819.8	979.1	1026.1	1073.1	1125.3	1151.4	1154.1
70°	86.2	109.7	188.0	242.9	715.4	853.8	893.0	942.6	984.3	997.4	1005.2
72.5°	80.9	101.9	177.5	219.3	608.3	733.7	770.2	799.0	835.6	848.6	848.6
75°	73.1	91.4	167.1	195.8	498.7	600.5	631.8	660.6	689.3	694.6	686.7
77.5°	65.3	80.9	143.6	164.5	389.1	475.2	501.3	516.9	540.4	545.7	548.3
80°	54.8	70.5	112.2	127.9	282.0	349.9	368.1	381.2	402.1	402.1	407.4
82.5°	41.8	54.8	80.9	91.4	190.6	240.2	255.9	263.7	276.7	276.7	276.7
85°	26.1	34.0	52.3	60.1	114.9	146.2	156.7	159.3	169.7	172.3	172.3
87.5°	13.0	18.3	34.0	36.6	60.1	75.7	75.7	80.9	80.9	78.3	75.7
90°	4.1	7.3	10.6	11.4	17.9	26.6	30.9	27.5	20.6	15.5	15.5
92.5°	16.3	44.0	71.7	78.6	110.6	153.0	174.3	152.7	109.7	77.4	74.3
95°	39.1	89.8	140.5	153.1	271.9	430.3	509.5	454.7	345.0	262.7	253.4
97.5°	67.6	112.2	157.0	168.2	366.3	630.3	762.4	727.8	658.4	606.4	588.7
100°	89.6	130.1	170.6	180.8	400.6	693.7	840.2	842.8	847.8	851.6	830.4
102.5°	108.4	146.2	184.0	193.5	416.3	713.6	862.2	906.4	994.7	1060.9	1042.8
105°	140.1	172.1	204.2	212.2	428.1	715.9	859.8	958.8	1156.8	1305.3	1295.6
107.5°	172.7	202.5	232.4	239.9	430.2	684.0	810.9	949.0	1225.2	1432.4	1434.8
110°	194.6	221.6	248.7	255.4	427.0	655.7	770.1	924.6	1233.3	1464.9	1475.1



TEST NUMBER: P936820

CATALOG NUMBER: SQ4-FB-050U-100D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	216.3	242.0	267.6	274.1	427.1	631.1	733.1	891.1	1207.1	1444.2	1459.8
115°	248.9	272.6	296.3	302.2	431.1	602.9	688.7	841.0	1145.4	1373.7	1395.3
117.5°	281.0	302.5	324.1	329.5	439.1	585.1	658.1	795.5	1070.3	1276.4	1300.3
120°	299.8	320.0	340.4	345.4	445.6	579.2	646.0	771.4	1022.5	1210.8	1234.0
122.5°	318.0	338.5	358.9	364.1	454.9	576.0	636.6	749.6	975.7	1145.3	1168.2
125°	346.2	364.8	383.4	388.1	467.5	573.4	626.4	722.4	914.5	1058.5	1079.7
127.5°	369.0	387.8	406.6	411.3	480.2	572.0	617.8	700.3	865.2	988.9	1006.7
130°	381.2	401.4	421.8	426.8	489.4	572.8	614.5	687.9	834.8	944.8	961.3
132.5°	393.8	414.1	434.4	439.5	496.9	573.4	611.8	677.5	808.9	907.4	922.1
135°	412.6	431.1	449.4	454.1	505.0	572.8	606.8	661.9	771.9	854.4	867.2
137.5°	431.8	450.0	468.3	472.9	517.2	576.4	606.0	652.6	745.6	815.4	825.8
140°	447.6	464.5	481.3	485.5	524.7	577.0	603.2	643.4	723.7	784.0	793.7
142.5°	459.8	475.3	490.9	494.8	531.0	579.1	603.2	638.4	709.1	762.0	770.4
145°	478.6	492.1	505.8	509.1	539.2	579.2	599.1	628.0	685.8	729.0	735.4
147.5°	497.3	510.5	523.7	527.0	551.0	583.1	599.1	621.8	667.2	701.3	706.5
150°	509.5	521.5	533.4	536.4	557.3	585.2	599.1	618.3	656.7	685.5	689.7
152.5°	522.2	531.2	540.2	542.5	561.4	586.6	599.1	615.5	648.2	672.8	676.1
155°	540.8	547.5	554.3	555.9	570.4	589.5	599.1	612.2	638.1	657.7	659.9
157.5°	554.7	561.2	567.7	569.4	579.3	592.5	599.1	609.2	629.5	644.7	646.2
160°	564.0	569.2	574.2	575.5	583.4	593.9	599.1	607.8	625.1	638.1	639.0
162.5°	573.4	577.3	581.0	582.0	587.8	595.4	599.1	606.4	621.2	632.1	632.9
165°	583.6	587.1	590.4	591.3	593.9	597.3	599.1	604.4	614.8	622.7	623.6
167.5°	593.0	594.6	596.3	596.7	598.8	601.7	603.2	606.6	613.5	618.7	619.1
170°	599.1	600.7	602.4	602.8	602.9	603.1	603.2	606.6	613.5	618.7	618.7
172.5°	602.4	602.8	603.1	603.2	603.2	603.2	603.2	605.9	611.4	615.4	615.1
175°	606.8	606.8	606.8	606.8	605.6	604.0	603.2	604.9	608.3	610.9	610.9
177.5°	606.8	606.8	606.8	606.8	605.8	604.6	604.0	605.3	608.0	610.1	609.7
180°	606.8	606.8	606.8	606.8	606.8	606.8	606.8	606.8	606.8	606.8	606.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	812.0	812.0
2.5°	866.9	861.6
5°	1114.9	1120.1
7.5°	1501.3	1498.7
10°	1866.8	1890.3
12.5°	2133.2	2138.4
15°	2295.0	2305.5
17.5°	2357.7	2360.3
20°	2360.3	2355.1
22.5°	2331.6	2326.3
25°	2297.7	2295.0
27.5°	2266.3	2268.9
30°	2253.2	2261.1
32.5°	2253.2	2266.3
35°	2258.5	2271.5
37.5°	2255.9	2271.5
40°	2245.4	2263.7
42.5°	2216.7	2229.7
45°	2172.3	2188.0
47.5°	2114.9	2125.3
50°	2041.8	2052.2
52.5°	1950.4	1953.0
55°	1840.7	1851.2
57.5°	1723.3	1725.8
60°	1592.7	1600.6
62.5°	1454.3	1454.3
65°	1308.1	1313.3
67.5°	1156.7	1169.7
70°	1002.6	1005.2
72.5°	851.2	851.2
75°	694.6	697.1
77.5°	545.7	545.7
80°	404.7	407.4
82.5°	279.4	284.6
85°	175.0	175.0
87.5°	80.9	73.1
90°	15.5	15.5
92.5°	61.9	49.7
95°	216.1	178.8
97.5°	517.7	446.8
100°	745.9	661.4
102.5°	970.4	898.0
105°	1256.6	1217.7
107.5°	1444.2	1453.5
110°	1515.6	1556.2



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CATALOG NUMBER: SQ4-FB-050U-100D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1522.0	1584.3
115°	1481.6	1568.0
117.5°	1396.1	1491.9
120°	1327.1	1420.2
122.5°	1260.0	1351.8
125°	1164.2	1248.7
127.5°	1078.0	1149.3
130°	1027.2	1093.1
132.5°	981.2	1040.2
135°	918.0	968.9
137.5°	867.5	909.1
140°	832.6	871.5
142.5°	803.8	837.3
145°	760.8	786.1
147.5°	727.6	748.6
150°	706.7	723.7
152.5°	688.9	701.8
155°	668.4	676.9
157.5°	652.2	658.1
160°	642.5	646.0
162.5°	636.2	639.4
165°	627.0	630.4
167.5°	620.5	621.9
170°	618.7	618.7
172.5°	613.8	612.6
175°	610.9	610.9
177.5°	608.3	606.8
180°	606.8	606.8



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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	6.60	7.62	7.44	8.49	9.59	19.78	20.80	20.62	21.67	22.77
	3H	7.31	8.24	8.17	9.12	10.24	21.63	22.55	22.48	23.43	24.55
	4H	7.62	8.49	8.49	9.38	10.51	22.28	23.15	23.15	24.04	25.17
	6H	7.88	8.69	8.76	9.58	10.72	22.72	23.53	23.60	24.42	25.56
	8H	7.95	8.72	8.84	9.64	10.78	22.84	23.62	23.74	24.53	25.67
	12H	7.98	8.71	8.87	9.62	10.79	22.92	23.65	23.82	24.56	25.73
4H	2H	13.83	14.71	14.71	15.59	16.72	20.07	20.94	20.95	21.83	22.96
	3H	15.41	16.15	16.30	17.07	18.21	22.13	22.86	23.02	23.78	24.93
	4H	15.52	16.19	16.42	17.10	18.27	22.90	23.57	23.80	24.49	25.66
	6H	15.54	16.12	16.45	17.06	18.23	23.45	24.03	24.37	24.97	26.14
	8H	15.52	16.06	16.44	16.99	18.18	23.62	24.16	24.54	25.10	26.28
	12H	15.48	15.97	16.42	16.92	18.12	23.72	24.21	24.66	25.16	26.36
8H	4H	16.98	17.52	17.89	18.45	19.64	22.98	23.52	23.90	24.45	25.64
	6H	17.23	17.68	18.17	18.65	19.84	23.62	24.07	24.56	25.04	26.23
	8H	17.25	17.64	18.20	18.61	19.81	23.84	24.24	24.79	25.20	26.41
	12H	17.22	17.57	18.18	18.53	19.78	23.99	24.34	24.95	25.30	26.55
12H	4H	17.13	17.62	18.07	18.57	19.76	22.94	23.43	23.88	24.38	25.57
	6H	17.49	17.89	18.44	18.85	20.05	23.60	24.00	24.56	24.97	26.17
	8H	17.56	17.92	18.52	18.87	20.13	23.84	24.19	24.80	25.15	26.40