

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: P936989

Luminaire Tested: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936989
REPORT IS A COMBINATION OF REPORTS P933480 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

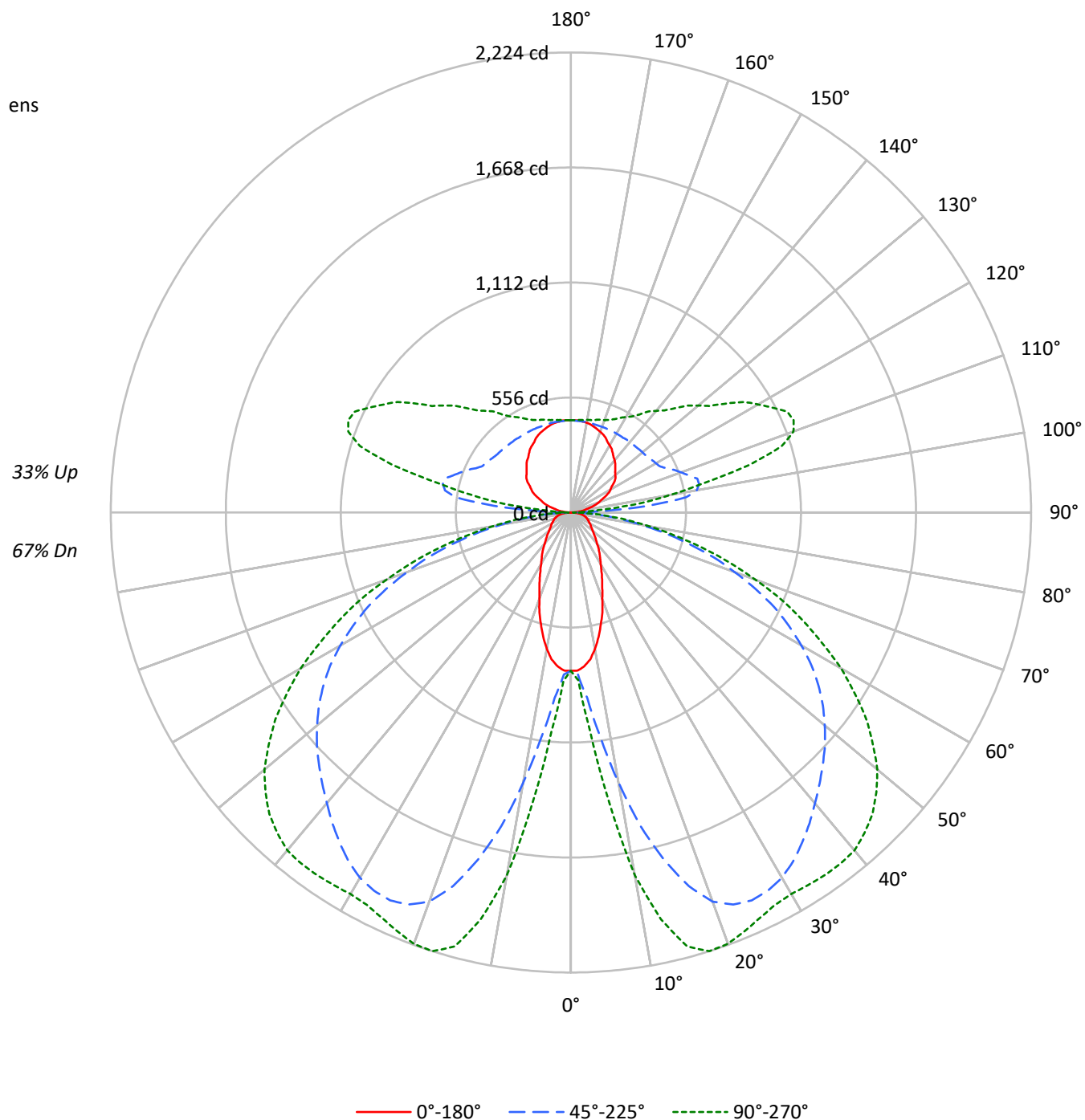
Lumens per Lamp: N/A
Luminaire Lumens: 8813.1 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 84
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: P936989

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

Luminous Intensity Polar Plot



TEST NUMBER: P936989

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4732	4732	4732
5°	4621	5468	6361
10°	4190	7969	10545
15°	3560	10408	12733
20°	2897	12058	12977
25°	2416	12616	12713
30°	2036	12692	12689
35°	1800	12478	13017
40°	1567	12201	13356
45°	1418	11996	13409
50°	1299	11812	13187
55°	1243	11544	12602
60°	1271	11032	11679
65°	1321	10256	10411
70°	1404	8938	8796
75°	1550	7282	6863
80°	1679	5043	4625
85°	1467	2671	2367

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13409 cd/sqm

TEST NUMBER: P936989

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	1.1
10°-20°	438.5	5.0
20°-30°	767.1	8.7
30°-40°	987.5	11.2
40°-50°	1103.0	12.5
50°-60°	1056.4	12.0
60°-70°	837.2	9.5
70°-80°	492.3	5.6
80°-90°	138.5	1.6
90°-100°	217.6	2.5
100°-110°	572.0	6.5
110°-120°	593.1	6.7
120°-130°	475.8	5.4
130°-140°	373.3	4.2
140°-150°	286.5	3.3
150°-160°	206.4	2.3
160°-170°	126.3	1.4
170°-180°	42.7	0.5
0°-30°	1304.6	14.8
0°-40°	2292.1	26.0
0°-60°	4451.4	50.5
0°-90°	5919.4	67.2
90°-120°	1382.8	15.7
90°-150°	2518.4	28.6
90°-180°	2894.0	32.8
0°-180°	8813.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	745	799	900	1018	1055	69
15°	558	1031	1736	2105	2172	155
25°	357	1168	2069	2160	2162	164
35°	241	1117	1948	2059	2140	151
45°	165	890	1722	1973	2061	127
55°	118	566	1461	1697	1744	108
65°	94	300	1085	1220	1237	93
75°	69	184	595	654	657	72
85°	25	57	148	162	165	26
90°	3	8	23	11	11	4
95°	29	113	375	193	132	32
105°	103	156	632	960	896	109
115°	183	222	507	1010	1153	181
125°	255	286	461	779	918	226
135°	304	334	446	628	713	235
145°	352	374	441	536	578	221
155°	398	409	441	484	498	183
165°	429	435	441	458	464	121
175°	446	446	444	449	449	42
180°	446	446	446	446	446	

TEST NUMBER: P936989

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	764.9	764.9	764.9	764.9	764.9	764.9	764.9	764.9	764.9	764.9	764.9
2.5°	764.9	764.9	769.9	772.3	777.2	779.8	784.6	789.5	804.3	806.8	811.7
5°	745.3	755.1	787.1	799.4	833.8	880.5	900.2	932.2	998.7	1018.3	1030.6
7.5°	715.8	737.9	816.6	836.2	922.4	1045.4	1097.0	1165.9	1271.6	1323.3	1365.1
10°	669.0	715.8	855.9	902.7	1042.9	1229.9	1325.8	1421.7	1581.6	1652.9	1680.0
12.5°	617.3	693.6	897.8	961.7	1163.4	1436.4	1552.0	1657.8	1839.8	1935.8	1950.5
15°	558.3	661.6	937.1	1030.6	1291.3	1608.6	1736.5	1866.9	2036.6	2105.4	2122.7
17.5°	506.7	637.0	974.0	1072.4	1389.7	1763.6	1893.9	2002.1	2139.9	2186.6	2199.0
20°	442.7	597.7	998.7	1126.6	1493.0	1876.8	2002.1	2085.8	2179.3	2208.7	2213.7
22.5°	396.0	555.9	1013.4	1146.2	1561.9	1945.6	2051.4	2117.7	2181.7	2191.6	2194.0
25°	356.7	509.1	1011.0	1168.3	1620.9	1987.4	2068.6	2117.7	2154.7	2159.6	2159.6
27.5°	319.8	457.5	1001.1	1173.3	1665.2	1997.2	2061.2	2095.7	2112.8	2122.7	2122.7
30°	287.8	408.3	976.5	1163.4	1684.9	1987.4	2039.1	2056.3	2073.5	2088.3	2095.7
32.5°	263.2	361.5	939.5	1143.7	1687.3	1962.8	1999.7	2009.5	2034.1	2068.6	2080.8
35°	241.1	314.8	897.8	1116.7	1672.6	1923.5	1948.1	1957.9	2007.1	2058.7	2076.0
37.5°	218.9	280.4	843.7	1070.0	1650.4	1876.8	1893.9	1911.2	1987.4	2048.9	2068.6
40°	196.8	250.9	779.8	1018.3	1616.0	1820.2	1834.9	1861.9	1962.8	2034.1	2053.8
42.5°	179.6	226.3	710.9	964.2	1571.7	1756.2	1778.3	1817.7	1933.3	2009.5	2031.7
45°	164.8	201.6	637.0	890.4	1515.1	1689.7	1721.7	1775.9	1898.9	1972.7	1992.4
47.5°	150.0	184.5	560.8	814.2	1453.7	1623.4	1665.2	1726.7	1852.1	1923.5	1940.7
50°	137.7	167.2	484.6	733.0	1387.2	1552.0	1601.3	1665.2	1793.1	1859.5	1881.6
52.5°	127.9	152.5	413.2	651.8	1311.0	1478.2	1534.8	1601.3	1721.7	1785.7	1800.5
55°	118.0	140.2	351.7	565.7	1232.3	1399.5	1461.1	1525.0	1643.0	1697.2	1707.0
57.5°	113.2	130.3	300.1	484.6	1148.7	1311.0	1379.9	1438.9	1549.6	1591.4	1601.3
60°	105.7	123.0	260.8	415.7	1057.7	1227.3	1286.4	1345.5	1438.9	1473.4	1480.7
62.5°	98.4	118.0	231.2	349.2	964.2	1129.0	1188.0	1242.2	1320.8	1345.5	1355.2
65°	93.5	113.2	209.1	300.1	868.2	1025.7	1084.7	1131.4	1195.4	1220.0	1224.9
67.5°	88.6	108.2	191.9	258.2	772.3	922.4	966.7	1011.0	1060.1	1084.7	1087.2
70°	81.2	103.3	177.1	228.8	673.9	804.3	841.2	887.9	927.3	939.5	947.0
72.5°	76.3	95.9	167.2	206.6	573.1	691.2	725.6	752.6	787.1	799.4	799.4
75°	68.9	86.0	157.5	184.5	469.8	565.7	595.3	622.3	649.3	654.3	646.9
77.5°	61.5	76.3	135.3	154.9	366.5	447.7	472.3	487.0	509.1	514.1	516.6
80°	51.6	66.4	105.7	120.5	265.6	329.6	346.8	359.1	378.8	378.8	383.7
82.5°	39.3	51.6	76.3	86.0	179.6	226.3	241.1	248.5	260.8	260.8	260.8
85°	24.6	32.0	49.2	56.6	108.2	137.7	147.6	150.0	159.9	162.3	162.3
87.5°	12.3	17.2	32.0	34.4	56.6	71.3	71.3	76.3	76.3	73.8	71.3
90°	3.0	5.4	7.8	8.4	13.2	19.6	22.8	20.3	15.1	11.3	11.3
92.5°	12.0	32.4	52.7	57.8	81.3	112.6	128.2	112.3	80.6	56.9	54.7
95°	28.8	66.0	103.3	112.6	200.0	316.6	374.8	334.5	253.8	193.2	186.3
97.5°	49.7	82.7	115.5	123.7	269.5	463.8	560.9	535.4	484.3	446.0	432.9
100°	65.9	95.7	125.6	133.0	294.7	510.3	618.0	619.9	623.6	626.5	611.0
102.5°	79.7	107.6	135.4	142.3	306.3	524.9	634.2	666.7	731.7	780.4	767.2
105°	103.1	126.6	150.2	156.1	314.8	526.6	632.4	705.2	850.9	960.2	953.0
107.5°	127.0	149.0	170.9	176.5	316.5	503.1	596.4	698.0	901.2	1053.6	1055.3
110°	143.2	163.0	182.9	187.8	314.1	482.4	566.5	680.0	907.3	1077.6	1085.1

TEST NUMBER: P936989

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	159.1	178.0	196.9	201.6	314.1	464.2	539.2	655.5	888.0	1062.3	1073.7
115°	183.0	200.5	217.9	222.3	317.1	443.4	506.6	618.6	842.5	1010.5	1026.4
117.5°	206.7	222.6	238.4	242.3	323.0	430.4	484.1	585.2	787.3	938.9	956.5
120°	220.4	235.4	250.3	254.1	327.7	426.0	475.1	567.4	752.1	890.6	907.8
122.5°	234.0	249.0	264.1	267.8	334.6	423.6	468.2	551.4	717.7	842.4	859.3
125°	254.7	268.3	282.1	285.5	343.9	421.8	460.8	531.4	672.7	778.6	794.1
127.5°	271.4	285.3	299.1	302.6	353.2	420.7	454.5	515.1	636.3	727.3	740.4
130°	280.4	295.4	310.3	314.0	360.0	421.3	452.0	506.0	614.1	695.1	707.2
132.5°	289.7	304.7	319.6	323.3	365.5	421.8	450.0	498.4	595.0	667.4	678.3
135°	303.5	317.1	330.6	334.0	371.5	421.4	446.4	486.9	567.8	628.5	637.9
137.5°	317.5	331.0	344.4	347.8	380.4	423.9	445.7	479.9	548.4	599.7	607.4
140°	329.3	341.7	354.0	357.1	386.0	424.4	443.7	473.3	532.4	576.7	583.8
142.5°	338.2	349.6	361.0	364.0	390.5	426.0	443.7	469.7	521.5	560.5	566.7
145°	352.0	362.0	372.0	374.5	396.6	426.0	440.7	461.9	504.4	536.2	540.9
147.5°	365.8	375.5	385.3	387.7	405.3	428.9	440.7	457.4	490.8	515.9	519.8
150°	374.8	383.6	392.3	394.6	410.0	430.4	440.7	454.8	483.0	504.2	507.3
152.5°	384.0	390.7	397.4	399.0	412.9	431.4	440.7	452.7	476.8	494.9	497.2
155°	397.9	402.8	407.7	408.9	419.5	433.6	440.7	450.3	469.5	483.8	485.4
157.5°	408.0	412.8	417.6	418.8	426.1	435.9	440.7	448.2	463.1	474.2	475.3
160°	414.9	418.6	422.3	423.3	429.1	436.8	440.7	447.1	459.9	469.5	470.1
162.5°	421.8	424.6	427.4	428.1	432.3	437.9	440.7	446.1	456.9	464.9	465.5
165°	429.3	431.8	434.3	435.0	436.9	439.4	440.7	444.6	452.2	458.0	458.7
167.5°	436.1	437.3	438.6	438.9	440.5	442.6	443.7	446.2	451.3	455.0	455.3
170°	440.7	441.9	443.1	443.4	443.5	443.6	443.7	446.2	451.3	455.0	455.0
172.5°	443.1	443.4	443.6	443.7	443.7	443.7	443.7	445.6	449.6	452.6	452.4
175°	446.4	446.4	446.4	446.4	445.5	444.3	443.7	445.0	447.5	449.3	449.3
177.5°	446.4	446.4	446.4	446.4	445.7	444.8	444.3	445.3	447.3	448.7	448.5
180°	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4

TEST NUMBER: P936989

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	764.9	764.9
2.5°	816.6	811.7
5°	1050.3	1055.2
7.5°	1414.4	1411.8
10°	1758.6	1780.8
12.5°	2009.5	2014.5
15°	2162.0	2171.9
17.5°	2221.0	2223.6
20°	2223.6	2218.6
22.5°	2196.4	2191.6
25°	2164.5	2162.0
27.5°	2135.0	2137.4
30°	2122.7	2130.1
32.5°	2122.7	2135.0
35°	2127.6	2139.9
37.5°	2125.1	2139.9
40°	2115.3	2132.5
42.5°	2088.3	2100.6
45°	2046.4	2061.2
47.5°	1992.4	2002.1
50°	1923.5	1933.3
52.5°	1837.3	1839.8
55°	1734.0	1743.9
57.5°	1623.4	1625.8
60°	1500.4	1507.8
62.5°	1370.1	1370.1
65°	1232.3	1237.2
67.5°	1089.6	1101.9
70°	944.5	947.0
72.5°	801.8	801.8
75°	654.3	656.7
77.5°	514.1	514.1
80°	381.2	383.7
82.5°	263.2	268.1
85°	164.8	164.8
87.5°	76.3	68.9
90°	11.3	11.3
92.5°	45.5	36.5
95°	158.9	131.5
97.5°	380.8	328.7
100°	548.7	486.5
102.5°	713.9	660.6
105°	924.4	895.7
107.5°	1062.2	1069.2
110°	1114.8	1144.7



TEST NUMBER: P936989

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1119.6	1165.3
115°	1089.8	1153.4
117.5°	1026.9	1097.4
120°	976.2	1044.7
122.5°	926.8	994.3
125°	856.3	918.5
127.5°	792.9	845.5
130°	755.6	804.1
132.5°	721.7	765.1
135°	675.3	712.7
137.5°	638.1	668.7
140°	612.4	641.1
142.5°	591.3	615.9
145°	559.6	578.2
147.5°	535.2	550.6
150°	519.9	532.4
152.5°	506.7	516.2
155°	491.7	497.9
157.5°	479.8	484.1
160°	472.6	475.1
162.5°	467.9	470.4
165°	461.2	463.8
167.5°	456.4	457.5
170°	455.0	455.0
172.5°	451.5	450.6
175°	449.3	449.3
177.5°	447.5	446.4
180°	446.4	446.4

TEST NUMBER: P936989

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-6-3500K

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	7.83	8.92	8.61	9.74	10.74	20.99	22.09	21.78	22.91	23.90
	3H	8.55	9.54	9.35	10.36	11.39	22.84	23.83	23.64	24.66	25.69
	4H	8.86	9.80	9.68	10.63	11.67	23.50	24.43	24.31	25.26	26.30
	6H	9.12	9.99	9.95	10.83	11.88	23.94	24.80	24.76	25.64	26.69
	8H	9.20	10.02	10.04	10.88	11.94	24.06	24.89	24.90	25.75	26.80
	12H	9.22	10.01	10.07	10.86	11.94	24.14	24.92	24.98	25.78	26.86
4H	2H	15.06	16.00	15.88	16.83	17.87	21.30	22.23	22.12	23.06	24.10
	3H	16.65	17.44	17.49	18.30	19.36	23.36	24.14	24.19	25.01	26.06
	4H	16.76	17.47	17.60	18.34	19.42	24.13	24.85	24.98	25.71	26.79
	6H	16.78	17.40	17.64	18.29	19.38	24.68	25.30	25.54	26.19	27.27
	8H	16.77	17.35	17.63	18.23	19.33	24.85	25.43	25.71	26.31	27.41
	12H	16.73	17.26	17.62	18.16	19.27	24.95	25.47	25.84	26.38	27.48
8H	4H	18.22	18.80	19.09	19.68	20.78	24.21	24.79	25.08	25.68	26.78
	6H	18.47	18.96	19.37	19.88	20.98	24.85	25.33	25.74	26.26	27.36
	8H	18.49	18.92	19.40	19.84	20.96	25.07	25.50	25.97	26.42	27.53
	12H	18.47	18.85	19.38	19.76	20.93	25.22	25.60	26.13	26.51	27.68
12H	4H	18.37	18.90	19.26	19.80	20.91	24.18	24.70	25.06	25.60	26.71
	6H	18.73	19.16	19.64	20.08	21.20	24.83	25.26	25.74	26.18	27.30
	8H	18.81	19.19	19.72	20.10	21.27	25.07	25.45	25.98	26.36	27.53