

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: P937724

Luminaire Tested: SQ4-FB-100U-125D-927-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937724
REPORT IS A COMBINATION OF REPORTS P933584 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-927-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

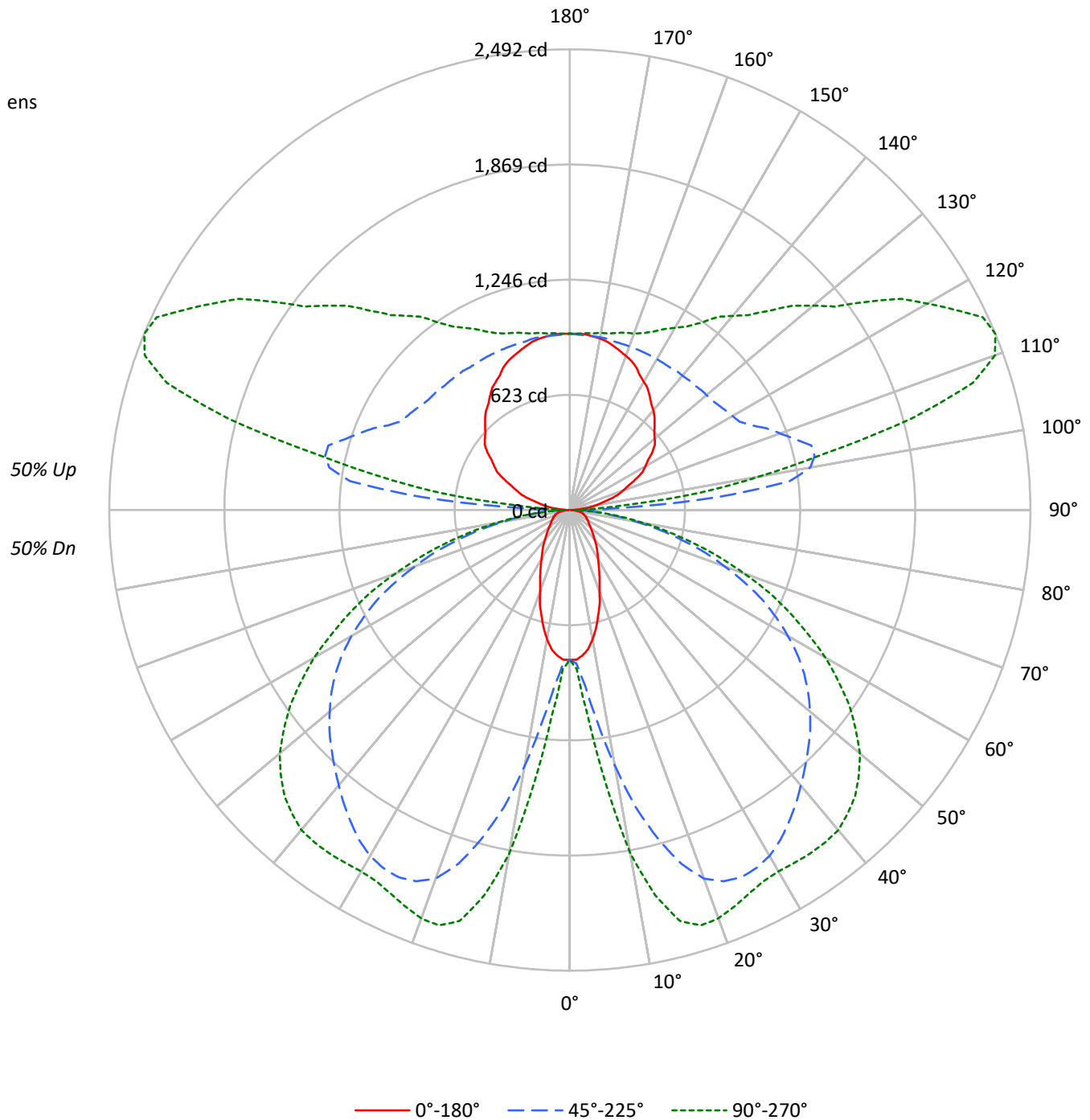
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12460.9 lumens
Efficiency: N/A
Efficacy: 90.6 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: General Diffuse

Input Watts (W): 137.6
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3760	3760	3760
5°	3673	4347	5054
10°	3332	6336	8380
15°	2832	8277	10118
20°	2306	9592	10312
25°	1923	10038	10103
30°	1622	10101	10084
35°	1434	9933	10344
40°	1250	9715	10614
45°	1131	9556	10656
50°	1038	9412	10479
55°	994	9202	10015
60°	1017	8798	9281
65°	1058	8183	8273
70°	1128	7137	6990
75°	1250	5819	5454
80°	1365	4035	3676
85°	1211	2141	1881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10656 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	0.8
10°-20°	464.7	3.7
20°-30°	812.8	6.5
30°-40°	1046.3	8.4
40°-50°	1168.7	9.4
50°-60°	1119.3	9.0
60°-70°	887.1	7.1
70°-80°	521.6	4.2
80°-90°	148.6	1.2
90°-100°	465.3	3.7
100°-110°	1223.1	9.8
110°-120°	1268.3	10.2
120°-130°	1017.3	8.2
130°-140°	798.2	6.4
140°-150°	612.7	4.9
150°-160°	441.2	3.5
160°-170°	270.0	2.2
170°-180°	91.2	0.7
0°-30°	1382.3	11.1
0°-40°	2428.6	19.5
0°-60°	4716.5	37.9
0°-90°	6273.8	50.3
90°-120°	2956.6	23.7
90°-150°	5384.8	43.2
90°-180°	6187.0	49.7
0°-180°	12460.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	790	847	954	1079	1118	73
15°	592	1092	1840	2231	2301	165
25°	378	1238	2192	2288	2291	174
35°	255	1183	2064	2181	2267	159
45°	175	943	1824	2090	2184	135
55°	125	599	1548	1798	1848	114
65°	99	318	1149	1293	1311	98
75°	73	195	631	693	696	76
85°	26	60	156	172	175	28
90°	6	18	49	24	24	7
95°	62	241	801	413	281	68
105°	220	334	1352	2053	1915	234
115°	391	475	1083	2161	2466	387
125°	544	610	985	1665	1964	483
135°	649	714	954	1344	1524	502
145°	753	801	942	1147	1236	472
155°	851	874	942	1034	1065	391
165°	918	930	942	979	992	259
175°	954	954	949	961	961	91
180°	954	954	954	954	954	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5
2.5°	810.5	810.5	815.7	818.4	823.5	826.1	831.4	836.6	852.2	854.9	860.0
5°	789.6	800.1	834.0	847.0	883.5	933.0	953.9	987.8	1058.1	1078.9	1091.9
7.5°	758.4	781.9	865.2	886.1	977.3	1107.6	1162.3	1235.3	1347.3	1402.1	1446.4
10°	708.9	758.4	906.9	956.4	1105.0	1303.1	1404.7	1506.4	1675.8	1751.4	1780.0
12.5°	654.1	735.0	951.3	1019.0	1232.7	1522.0	1644.5	1756.5	1949.4	2051.0	2066.7
15°	591.6	701.1	992.9	1091.9	1368.2	1704.4	1839.9	1978.1	2157.9	2230.8	2249.1
17.5°	536.8	675.0	1032.0	1136.3	1472.5	1868.6	2006.7	2121.4	2267.3	2316.9	2329.9
20°	469.1	633.3	1058.1	1193.6	1582.0	1988.5	2121.4	2210.0	2309.1	2340.3	2345.5
22.5°	419.6	589.0	1073.8	1214.4	1654.9	2061.4	2173.6	2243.9	2311.6	2322.1	2324.7
25°	377.9	539.5	1071.1	1237.9	1717.5	2105.8	2191.8	2243.9	2283.0	2288.2	2288.2
27.5°	338.8	484.7	1060.7	1243.2	1764.4	2116.2	2184.0	2220.4	2238.7	2249.1	2249.1
30°	304.9	432.6	1034.6	1232.7	1785.2	2105.8	2160.5	2178.7	2197.0	2212.6	2220.4
32.5°	278.9	383.1	995.5	1211.8	1787.8	2079.7	2118.8	2129.2	2155.3	2191.8	2204.8
35°	255.4	333.6	951.3	1183.2	1772.2	2038.0	2064.1	2074.5	2126.6	2181.3	2199.6
37.5°	231.9	297.1	893.9	1133.7	1748.7	1988.5	2006.7	2024.9	2105.8	2170.9	2191.8
40°	208.5	265.8	826.1	1078.9	1712.2	1928.5	1944.2	1972.8	2079.7	2155.3	2176.1
42.5°	190.3	239.8	753.2	1021.6	1665.4	1860.8	1884.3	1925.9	2048.4	2129.2	2152.7
45°	174.6	213.7	675.0	943.4	1605.4	1790.4	1824.3	1881.6	2011.9	2090.2	2111.0
47.5°	159.0	195.4	594.2	862.6	1540.2	1720.0	1764.4	1829.5	1962.4	2038.0	2056.3
50°	145.9	177.3	513.4	776.6	1469.9	1644.5	1696.6	1764.4	1899.9	1970.3	1993.7
52.5°	135.5	161.5	437.8	690.6	1389.1	1566.3	1626.2	1696.6	1824.3	1892.0	1907.7
55°	125.1	148.5	372.7	599.4	1305.7	1482.9	1548.1	1615.8	1740.9	1798.3	1808.7
57.5°	119.9	138.1	317.9	513.4	1217.1	1389.1	1462.1	1524.6	1641.9	1686.1	1696.6
60°	112.0	130.3	276.3	440.4	1120.7	1300.5	1363.0	1425.6	1524.6	1561.1	1568.9
62.5°	104.3	125.1	245.0	370.1	1021.6	1196.2	1258.8	1316.1	1399.5	1425.6	1436.0
65°	99.0	119.9	221.5	317.9	920.0	1086.8	1149.3	1198.8	1266.6	1292.7	1297.8
67.5°	93.8	114.7	203.3	273.7	818.4	977.3	1024.2	1071.1	1123.3	1149.3	1151.9
70°	86.0	109.5	187.6	242.4	714.1	852.2	891.3	940.8	982.5	995.5	1003.4
72.5°	80.8	101.6	177.3	218.9	607.2	732.3	768.8	797.5	834.0	847.0	847.0
75°	73.0	91.2	166.8	195.4	497.8	599.4	630.7	659.4	688.0	693.2	685.5
77.5°	65.1	80.8	143.4	164.2	388.3	474.3	500.3	516.1	539.5	544.7	547.3
80°	54.7	70.4	112.0	127.7	281.4	349.2	367.4	380.5	401.3	401.3	406.6
82.5°	41.7	54.7	80.8	91.2	190.3	239.8	255.4	263.2	276.3	276.3	276.3
85°	26.0	33.9	52.1	59.9	114.7	145.9	156.4	159.0	169.4	172.0	172.0
87.5°	13.0	18.2	33.9	36.5	59.9	75.6	75.6	80.8	80.8	78.2	75.6
90°	6.4	11.6	16.6	17.9	28.2	41.8	48.7	43.3	32.4	24.3	24.3
92.5°	25.6	69.2	112.8	123.7	173.8	240.7	274.1	240.2	172.6	121.7	116.9
95°	61.5	141.2	220.9	240.9	427.7	676.8	801.3	715.1	542.5	413.2	398.6
97.5°	106.3	176.6	247.0	264.6	576.1	991.5	1199.1	1144.6	1035.6	953.8	925.9
100°	140.9	204.7	268.5	284.4	630.1	1091.0	1321.5	1325.5	1333.4	1339.4	1306.2
102.5°	170.4	229.8	289.4	304.2	654.8	1122.3	1356.0	1425.5	1564.5	1668.7	1640.2
105°	220.4	270.7	321.1	333.7	673.2	1125.9	1352.2	1507.9	1819.4	2053.0	2037.7
107.5°	271.6	318.5	365.5	377.3	676.7	1075.8	1275.4	1492.6	1927.0	2252.8	2256.5
110°	306.2	348.6	391.0	401.6	671.5	1031.3	1211.3	1454.1	1939.8	2304.1	2320.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	340.1	380.5	421.0	431.1	671.7	992.6	1153.0	1401.6	1898.6	2271.4	2295.9
115°	391.4	428.7	466.0	475.3	677.9	948.1	1083.2	1322.6	1801.5	2160.6	2194.6
117.5°	442.0	475.9	509.7	518.2	690.5	920.2	1035.1	1251.2	1683.4	2007.5	2045.1
120°	471.5	503.3	535.2	543.2	700.8	910.9	1015.9	1213.4	1608.2	1904.4	1940.9
122.5°	500.3	532.5	564.6	572.6	715.5	905.9	1001.2	1178.9	1534.5	1801.3	1837.4
125°	544.5	573.8	603.1	610.5	735.4	901.9	985.1	1136.2	1438.3	1664.8	1698.1
127.5°	580.3	609.9	639.6	647.0	755.2	899.6	971.7	1101.4	1360.7	1555.2	1583.3
130°	599.5	631.4	663.3	671.3	769.7	901.0	966.6	1082.0	1312.9	1486.1	1512.0
132.5°	619.4	651.3	683.1	691.2	781.5	901.9	962.1	1065.4	1272.1	1427.1	1450.3
135°	648.9	677.9	707.0	714.3	794.3	901.1	954.4	1041.0	1214.1	1343.9	1363.9
137.5°	679.0	707.7	736.5	743.7	813.5	906.6	953.1	1026.3	1172.6	1282.4	1298.8
140°	703.9	730.4	756.9	763.5	825.2	907.5	948.6	1011.9	1138.3	1233.1	1248.4
142.5°	723.2	747.7	772.2	778.2	835.1	910.8	948.6	1004.2	1115.2	1198.5	1211.7
145°	752.7	774.0	795.4	800.7	847.9	910.8	942.2	987.7	1078.5	1146.6	1156.5
147.5°	782.1	802.9	823.7	828.9	866.7	917.1	942.2	978.0	1049.4	1103.0	1111.3
150°	801.3	820.1	838.9	843.6	876.5	920.3	942.2	972.4	1032.8	1078.1	1084.8
152.5°	821.2	835.4	849.7	853.2	882.9	922.5	942.2	968.0	1019.6	1058.2	1063.3
155°	850.6	861.2	871.7	874.3	897.0	927.2	942.2	962.7	1003.8	1034.5	1037.8
157.5°	872.4	882.7	893.0	895.5	911.1	931.9	942.2	958.2	990.1	1014.0	1016.3
160°	887.2	895.2	903.1	905.1	917.5	934.0	942.2	956.0	983.3	1003.8	1005.2
162.5°	901.9	907.9	913.9	915.4	924.3	936.2	942.2	953.8	976.8	994.1	995.5
165°	917.9	923.3	928.7	930.1	934.2	939.6	942.2	950.5	967.0	979.4	980.8
167.5°	932.6	935.2	937.8	938.4	941.8	946.3	948.6	954.0	964.9	973.0	973.5
170°	942.2	944.8	947.4	948.0	948.3	948.5	948.6	954.0	964.9	973.0	973.0
172.5°	947.4	947.9	948.5	948.6	948.6	948.6	948.6	953.0	961.5	967.9	967.4
175°	954.4	954.4	954.4	954.4	952.5	949.9	948.6	951.3	956.7	960.8	960.8
177.5°	954.4	954.4	954.4	954.4	953.0	951.0	949.9	952.1	956.3	959.6	959.0
180°	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	810.5	810.5
2.5°	865.2	860.0
5°	1112.8	1118.0
7.5°	1498.5	1496.0
10°	1863.4	1886.9
12.5°	2129.2	2134.4
15°	2290.8	2301.2
17.5°	2353.4	2356.0
20°	2356.0	2350.7
22.5°	2327.3	2322.1
25°	2293.4	2290.8
27.5°	2262.1	2264.7
30°	2249.1	2256.9
32.5°	2249.1	2262.1
35°	2254.3	2267.3
37.5°	2251.7	2267.3
40°	2241.3	2259.6
42.5°	2212.6	2225.7
45°	2168.3	2184.0
47.5°	2111.0	2121.4
50°	2038.0	2048.4
52.5°	1946.8	1949.4
55°	1837.3	1847.8
57.5°	1720.0	1722.6
60°	1589.7	1597.6
62.5°	1451.6	1451.6
65°	1305.7	1310.9
67.5°	1154.5	1167.6
70°	1000.8	1003.4
72.5°	849.6	849.6
75°	693.2	695.8
77.5°	544.7	544.7
80°	403.9	406.6
82.5°	278.9	284.1
85°	174.6	174.6
87.5°	80.8	73.0
90°	24.3	24.3
92.5°	97.6	78.2
95°	339.9	281.2
97.5°	814.3	702.7
100°	1173.2	1040.3
102.5°	1526.3	1412.4
105°	1976.4	1915.2
107.5°	2271.3	2286.1
110°	2383.8	2447.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2393.8	2491.7
115°	2330.3	2466.2
117.5°	2195.7	2346.3
120°	2087.3	2233.6
122.5°	1981.7	2126.0
125°	1831.0	1964.0
127.5°	1695.5	1807.7
130°	1615.6	1719.3
132.5°	1543.2	1635.9
135°	1443.9	1523.9
137.5°	1364.2	1429.7
140°	1309.5	1370.8
142.5°	1264.3	1317.0
145°	1196.4	1236.2
147.5°	1144.3	1177.3
150°	1111.5	1138.3
152.5°	1083.5	1103.6
155°	1051.2	1064.6
157.5°	1025.7	1035.1
160°	1010.5	1015.9
162.5°	1000.5	1005.7
165°	986.2	991.6
167.5°	975.8	978.1
170°	973.0	973.0
172.5°	965.4	963.4
175°	960.8	960.8
177.5°	956.7	954.4
180°	954.4	954.4



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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	5.64	6.54	6.58	7.51	8.77	18.82	19.72	19.76	20.69	21.95
	3H	6.35	7.16	7.30	8.14	9.42	20.66	21.47	21.62	22.45	23.73
	4H	6.65	7.42	7.62	8.40	9.69	21.31	22.08	22.28	23.06	24.35
	6H	6.90	7.61	7.88	8.60	9.90	21.74	22.45	22.72	23.44	24.74
	8H	6.97	7.65	7.96	8.65	9.95	21.86	22.54	22.85	23.54	24.85
	12H	6.99	7.63	7.98	8.63	9.96	21.93	22.58	22.93	23.57	24.90
4H	2H	12.86	13.63	13.84	14.61	15.90	19.10	19.87	20.07	20.85	22.14
	3H	14.43	15.08	15.42	16.09	17.39	21.15	21.79	22.13	22.80	24.11
	4H	14.53	15.12	15.52	16.12	17.45	21.92	22.51	22.91	23.51	24.84
	6H	14.54	15.05	15.55	16.08	17.41	22.46	22.97	23.46	23.99	25.32
	8H	14.52	15.00	15.53	16.02	17.36	22.62	23.10	23.63	24.12	25.46
	12H	14.48	14.91	15.51	15.94	17.29	22.72	23.15	23.74	24.18	25.53
8H	4H	15.98	16.45	16.99	17.47	18.82	21.98	22.46	22.99	23.48	24.82
	6H	16.22	16.62	17.25	17.68	19.02	22.61	23.01	23.65	24.07	25.41
	8H	16.24	16.59	17.28	17.63	19.00	22.83	23.18	23.87	24.23	25.59
	12H	16.21	16.52	17.26	17.56	18.96	22.98	23.28	24.02	24.33	25.73
12H	4H	16.12	16.55	17.15	17.59	18.94	21.93	22.37	22.96	23.40	24.75
	6H	16.48	16.83	17.52	17.88	19.24	22.59	22.94	23.64	23.99	25.35
	8H	16.55	16.86	17.60	17.90	19.30	22.83	23.13	23.87	24.18	25.58