

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: P938264

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938264
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

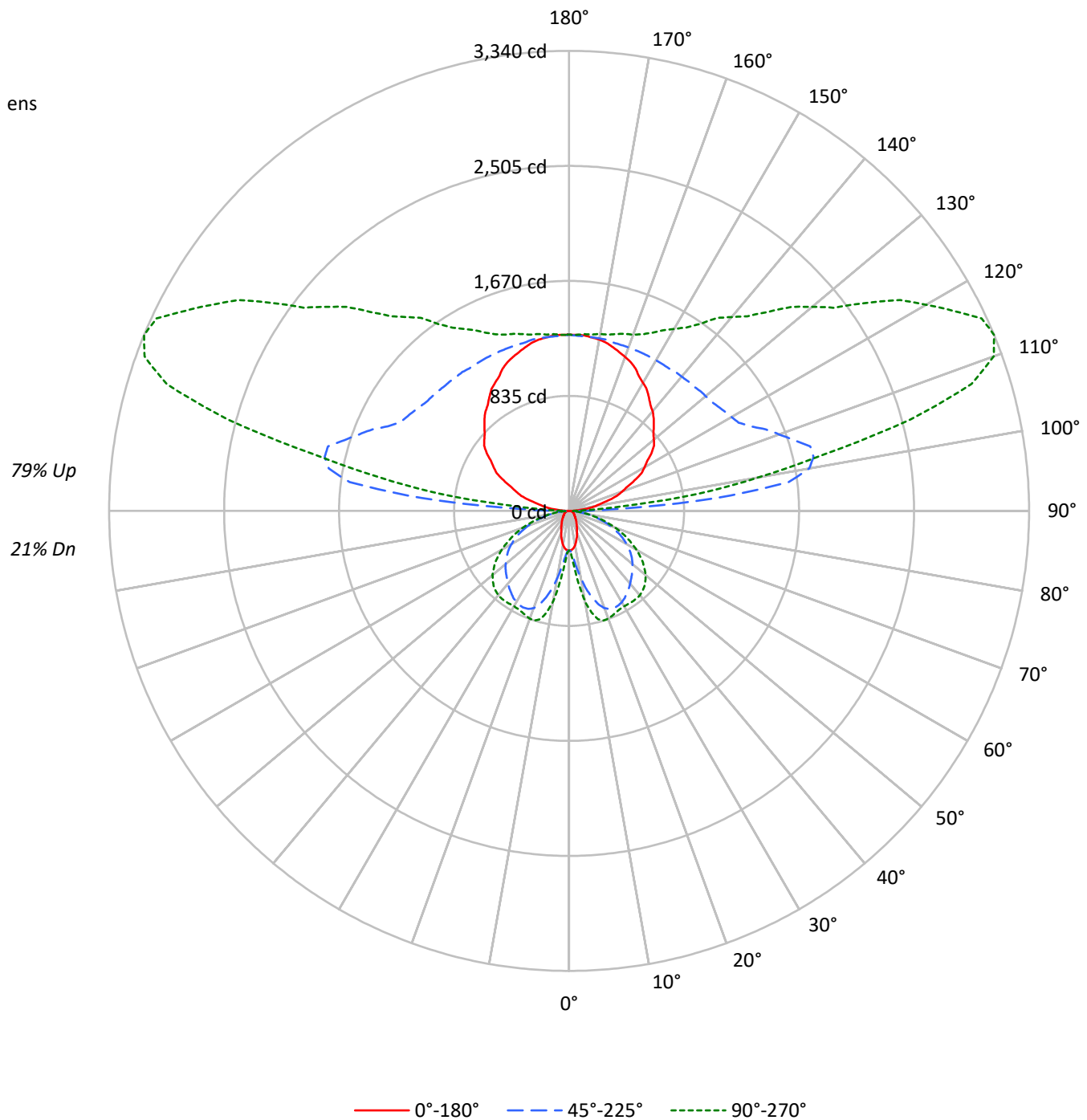
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10518.6 lumens
Efficiency: N/A
Efficacy: 126.1 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-Indirect

Input Watts (W): 83.4
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

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CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-6-5000K

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1776	1776	1776
5°	1734	2052	2387
10°	1573	2991	3957
15°	1336	3906	4779
20°	1088	4526	4870
25°	907	4734	4771
30°	764	4764	4762
35°	676	4682	4885
40°	589	4579	5012
45°	533	4502	5032
50°	488	4433	4949
55°	467	4332	4730
60°	477	4140	4383
65°	496	3849	3907
70°	528	3354	3301
75°	583	2733	2576
80°	631	1892	1736
85°	554	1003	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5032 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	0.4
10°-20°	164.6	1.6
20°-30°	287.9	2.7
30°-40°	370.6	3.5
40°-50°	413.9	3.9
50°-60°	396.5	3.8
60°-70°	314.2	3.0
70°-80°	184.7	1.8
80°-90°	56.2	0.5
90°-100°	623.6	5.9
100°-110°	1639.4	15.6
110°-120°	1699.9	16.2
120°-130°	1363.5	13.0
130°-140°	1069.9	10.2
140°-150°	821.2	7.8
150°-160°	591.4	5.6
160°-170°	361.8	3.4
170°-180°	122.2	1.2
0°-30°	489.6	4.7
0°-40°	860.2	8.2
0°-60°	1670.6	15.9
0°-90°	2225.7	21.2
90°-120°	3962.9	37.7
90°-150°	7217.5	68.6
90°-180°	8293.0	78.8
0°-180°	10518.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	287	287	287	287	287	
5°	280	300	338	382	396	26
15°	210	387	652	790	815	58
25°	134	438	776	810	811	62
35°	90	419	731	773	803	56
45°	62	334	646	740	774	48
55°	44	212	548	637	654	40
65°	35	113	407	458	464	35
75°	26	69	223	246	246	27
85°	9	21	55	61	62	10
90°	9	24	65	33	33	8
95°	82	323	1074	554	377	91
105°	295	447	1812	2752	2567	313
115°	525	637	1452	2896	3305	518
125°	730	818	1320	2231	2632	648
135°	870	957	1279	1801	2042	673
145°	1009	1073	1263	1537	1657	632
155°	1140	1172	1263	1386	1427	524
165°	1230	1247	1263	1313	1329	347
175°	1279	1279	1272	1288	1288	121
180°	1279	1279	1279	1279	1279	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	287.1	287.1	287.1	287.1	287.1	287.1	287.1	287.1	287.1	287.1	287.1
2.5°	287.1	287.1	288.9	289.8	291.7	292.7	294.5	296.3	301.8	302.7	304.6
5°	279.7	283.4	295.4	300.0	312.9	330.5	337.8	349.8	374.8	382.1	386.8
7.5°	268.6	277.0	306.4	313.9	346.2	392.3	411.7	437.6	477.2	496.7	512.3
10°	251.1	268.6	321.2	338.8	391.4	461.5	497.6	533.5	593.6	620.3	630.5
12.5°	231.7	260.4	336.9	360.9	436.6	539.1	582.5	622.2	690.5	726.4	732.0
15°	209.5	248.3	351.7	386.8	484.6	603.7	651.7	700.7	764.3	790.1	796.7
17.5°	190.1	239.1	365.5	402.5	521.5	661.8	710.8	751.4	803.1	820.6	825.2
20°	166.2	224.3	374.8	422.8	560.3	704.3	751.4	782.8	817.8	829.0	830.8
22.5°	148.6	208.6	380.3	430.1	586.1	730.1	769.9	794.7	818.8	822.4	823.4
25°	133.9	191.1	379.4	438.5	608.3	745.8	776.3	794.7	808.6	810.4	810.4
27.5°	120.0	171.7	375.7	440.3	625.0	749.6	773.5	786.5	792.9	796.7	796.7
30°	108.0	153.3	366.4	436.6	632.3	745.8	765.3	771.7	778.1	783.7	786.5
32.5°	98.7	135.7	352.6	429.2	633.2	736.6	750.5	754.2	763.3	776.3	781.0
35°	90.5	118.2	336.9	419.1	627.7	721.9	731.0	734.8	753.2	772.6	779.0
37.5°	82.1	105.3	316.6	401.6	619.4	704.3	710.8	717.3	745.8	768.9	776.3
40°	73.9	94.2	292.7	382.1	606.5	683.0	688.6	698.7	736.6	763.3	770.8
42.5°	67.4	84.9	266.8	361.8	589.8	659.1	667.3	682.1	725.5	754.2	762.4
45°	61.9	75.7	239.1	334.1	568.6	634.1	646.1	666.4	712.6	740.3	747.6
47.5°	56.3	69.2	210.4	305.5	545.6	609.3	625.0	648.0	695.1	721.9	728.3
50°	51.7	62.8	181.9	275.0	520.6	582.5	600.9	625.0	672.9	697.8	706.2
52.5°	48.0	57.3	155.1	244.7	492.0	554.7	576.0	600.9	646.1	670.2	675.7
55°	44.3	52.6	132.0	212.3	462.4	525.2	548.3	572.3	616.6	636.9	640.6
57.5°	42.5	48.9	112.6	181.9	431.0	492.0	517.9	540.0	581.5	597.2	600.9
60°	39.7	46.2	97.8	156.0	396.9	460.6	482.8	504.9	540.0	552.9	555.7
62.5°	36.9	44.3	86.8	131.0	361.8	423.7	445.8	466.2	495.6	504.9	508.6
65°	35.1	42.5	78.5	112.6	325.9	384.9	407.1	424.6	448.6	457.8	459.7
67.5°	33.2	40.7	72.0	96.9	289.8	346.2	362.8	379.4	397.8	407.1	408.0
70°	30.5	38.7	66.4	85.8	252.9	301.8	315.7	333.2	348.0	352.6	355.4
72.5°	28.6	36.0	62.8	77.5	215.1	259.3	272.3	282.5	295.4	300.0	300.0
75°	25.9	32.3	59.1	69.2	176.3	212.3	223.4	233.6	243.6	245.6	242.7
77.5°	23.0	28.6	50.7	58.2	137.6	168.0	177.2	182.8	191.1	192.9	193.8
80°	19.4	25.0	39.7	45.2	99.7	123.7	130.1	134.8	142.2	142.2	144.0
82.5°	14.8	19.4	28.6	32.3	67.4	84.9	90.5	93.2	97.8	97.8	97.8
85°	9.3	12.0	18.4	21.2	40.7	51.7	55.4	56.3	60.0	60.9	60.9
87.5°	4.6	6.4	12.0	12.9	21.2	26.8	26.8	28.6	28.6	27.7	26.8
90°	8.6	15.5	22.3	24.0	37.8	56.1	65.2	58.0	43.5	32.7	32.7
92.5°	34.3	92.7	151.1	165.7	233.0	322.7	367.4	322.0	231.3	163.2	156.7
95°	82.4	189.2	296.1	322.8	573.3	907.1	1074.1	958.4	727.2	553.7	534.1
97.5°	142.5	236.8	331.0	354.6	772.1	1328.9	1607.3	1534.2	1388.0	1278.4	1241.0
100°	188.9	274.4	359.8	381.2	844.6	1462.3	1771.2	1776.6	1787.3	1795.3	1750.8
102.5°	228.4	308.2	387.9	407.8	877.8	1504.3	1817.6	1910.6	2096.8	2236.5	2198.3
105°	295.3	362.9	430.4	447.3	902.4	1509.1	1812.4	2021.1	2438.6	2751.7	2731.2
107.5°	364.0	427.0	490.0	505.6	906.9	1441.9	1709.4	2000.6	2582.9	3019.6	3024.5
110°	410.4	467.3	524.1	538.3	900.1	1382.3	1623.5	1949.0	2600.0	3088.2	3109.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	455.9	510.1	564.2	577.8	900.4	1330.4	1545.4	1878.5	2544.8	3044.5	3077.3
115°	524.6	574.6	624.6	637.1	908.6	1270.7	1451.8	1772.7	2414.5	2895.9	2941.4
117.5°	592.4	637.8	683.2	694.6	925.6	1233.5	1387.5	1677.1	2256.2	2690.7	2741.2
120°	631.9	674.7	717.5	728.1	939.3	1220.9	1361.7	1626.3	2155.6	2552.5	2601.5
122.5°	670.6	713.7	756.8	767.6	959.0	1214.3	1341.9	1580.3	2056.8	2414.3	2462.6
125°	729.8	769.0	808.4	818.2	985.6	1208.9	1320.5	1522.9	1927.7	2231.4	2275.9
127.5°	777.8	817.5	857.2	867.1	1012.2	1205.7	1302.4	1476.2	1823.8	2084.5	2122.2
130°	803.6	846.4	889.2	899.8	1031.8	1207.7	1295.6	1450.3	1759.8	1991.9	2026.5
132.5°	830.2	873.0	915.8	926.4	1047.5	1208.9	1289.5	1428.0	1705.1	1912.8	1944.0
135°	869.7	908.6	947.6	957.3	1064.6	1207.7	1279.3	1395.3	1627.3	1801.3	1828.0
137.5°	910.1	948.6	987.2	996.8	1090.4	1215.1	1277.5	1375.6	1571.7	1718.8	1740.8
140°	943.6	979.1	1014.5	1023.4	1106.1	1216.4	1271.6	1356.3	1525.7	1652.8	1673.2
142.5°	969.3	1002.1	1035.0	1043.1	1119.3	1220.8	1271.6	1346.0	1494.7	1606.3	1624.0
145°	1008.8	1037.5	1066.1	1073.2	1136.5	1220.8	1262.9	1323.8	1445.6	1536.9	1550.2
147.5°	1048.3	1076.2	1104.0	1111.0	1161.6	1229.2	1262.9	1310.8	1406.6	1478.4	1489.5
150°	1074.1	1099.2	1124.4	1130.7	1174.7	1233.6	1262.9	1303.4	1384.3	1444.9	1453.9
152.5°	1100.7	1119.8	1138.9	1143.6	1183.4	1236.4	1262.9	1297.4	1366.5	1418.3	1425.1
155°	1140.1	1154.3	1168.4	1171.9	1202.3	1242.7	1262.9	1290.4	1345.3	1386.5	1391.0
157.5°	1169.3	1183.1	1196.9	1200.3	1221.2	1249.0	1262.9	1284.3	1327.1	1359.1	1362.2
160°	1189.1	1199.8	1210.4	1213.1	1229.7	1251.8	1262.9	1281.3	1317.9	1345.3	1347.2
162.5°	1208.9	1216.9	1224.8	1226.9	1238.9	1254.9	1262.9	1278.3	1309.3	1332.5	1334.2
165°	1230.4	1237.6	1244.8	1246.6	1252.0	1259.3	1262.9	1274.0	1296.2	1312.8	1314.6
167.5°	1250.1	1253.5	1257.0	1257.8	1262.4	1268.5	1271.6	1278.8	1293.3	1304.1	1304.9
170°	1262.9	1266.3	1269.8	1270.6	1270.9	1271.4	1271.6	1278.8	1293.3	1304.1	1304.1
172.5°	1269.8	1270.5	1271.4	1271.6	1271.6	1271.6	1271.6	1277.2	1288.7	1297.3	1296.6
175°	1279.3	1279.3	1279.3	1279.3	1276.7	1273.3	1271.6	1275.1	1282.4	1287.8	1287.8
177.5°	1279.3	1279.3	1279.3	1279.3	1277.2	1274.6	1273.2	1276.1	1281.8	1286.1	1285.4
180°	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3	1279.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	287.1	287.1
2.5°	306.4	304.6
5°	394.2	396.0
7.5°	530.8	529.9
10°	660.0	668.3
12.5°	754.2	756.0
15°	811.4	815.1
17.5°	833.5	834.5
20°	834.5	832.6
22.5°	824.3	822.4
25°	812.3	811.4
27.5°	801.2	802.2
30°	796.7	799.4
32.5°	796.7	801.2
35°	798.5	803.1
37.5°	797.6	803.1
40°	793.8	800.3
42.5°	783.7	788.3
45°	768.0	773.5
47.5°	747.6	751.4
50°	721.9	725.5
52.5°	689.6	690.5
55°	650.7	654.5
57.5°	609.3	610.2
60°	563.1	565.9
62.5°	514.2	514.2
65°	462.4	464.3
67.5°	408.9	413.5
70°	354.5	355.4
72.5°	300.9	300.9
75°	245.6	246.5
77.5°	192.9	192.9
80°	143.1	144.0
82.5°	98.7	100.6
85°	61.9	61.9
87.5°	28.6	25.9
90°	32.7	32.7
92.5°	130.7	104.7
95°	455.5	376.9
97.5°	1091.4	941.8
100°	1572.6	1394.3
102.5°	2045.7	1893.1
105°	2649.1	2567.1
107.5°	3044.4	3064.2
110°	3195.0	3280.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3208.5	3339.8
115°	3123.4	3305.4
117.5°	2943.0	3144.9
120°	2797.7	2993.8
122.5°	2656.1	2849.5
125°	2454.1	2632.3
127.5°	2272.5	2422.9
130°	2165.5	2304.3
132.5°	2068.3	2192.7
135°	1935.3	2042.5
137.5°	1828.6	1916.3
140°	1755.3	1837.3
142.5°	1694.6	1765.2
145°	1603.6	1657.0
147.5°	1533.7	1578.1
150°	1489.8	1525.7
152.5°	1452.2	1479.3
155°	1408.9	1426.9
157.5°	1374.9	1387.5
160°	1354.4	1361.7
162.5°	1341.0	1347.9
165°	1321.8	1329.0
167.5°	1308.0	1311.0
170°	1304.1	1304.1
172.5°	1293.9	1291.3
175°	1287.8	1287.8
177.5°	1282.3	1279.3
180°	1279.3	1279.3



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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	0.00	0.08	0.59	1.24	2.87	12.59	13.25	13.75	14.40	16.03
	3H	0.11	0.71	1.28	1.87	3.51	14.40	15.00	15.58	16.16	17.81
	4H	0.40	0.97	1.58	2.13	3.78	15.04	15.60	16.22	16.77	18.41
	6H	0.64	1.16	1.83	2.32	3.98	15.45	15.97	16.64	17.14	18.80
	8H	0.70	1.20	1.89	2.38	4.03	15.56	16.06	16.76	17.24	18.89
	12H	0.71	1.18	1.91	2.36	4.03	15.62	16.09	16.82	17.27	18.94
4H	2H	6.60	7.17	7.79	8.33	9.98	12.84	13.40	14.03	14.56	16.21
	3H	8.15	8.63	9.35	9.81	11.47	14.86	15.33	16.05	16.52	18.18
	4H	8.24	8.67	9.43	9.85	11.53	15.61	16.05	16.81	17.22	18.90
	6H	8.24	8.61	9.44	9.81	11.47	16.14	16.51	17.33	17.71	19.37
	8H	8.21	8.56	9.41	9.75	11.43	16.29	16.64	17.49	17.83	19.51
	12H	8.16	8.47	9.37	9.67	11.36	16.37	16.69	17.58	17.89	19.58
8H	4H	9.66	10.01	10.86	11.20	12.88	15.66	16.00	16.85	17.19	18.88
	6H	9.89	10.18	11.11	11.41	13.09	16.27	16.56	17.49	17.79	19.47
	8H	9.91	10.16	11.13	11.37	13.07	16.49	16.74	17.71	17.94	19.64
	12H	9.87	10.09	11.10	11.29	13.03	16.62	16.84	17.84	18.04	19.77
12H	4H	9.79	10.11	11.01	11.31	13.00	15.60	15.92	16.81	17.11	18.80
	6H	10.15	10.40	11.37	11.61	13.31	16.25	16.50	17.47	17.71	19.41
	8H	10.21	10.43	11.44	11.64	13.37	16.47	16.69	17.70	17.89	19.63