

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: P936994

Luminaire Tested: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936994
REPORT IS A COMBINATION OF REPORTS P933488 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-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

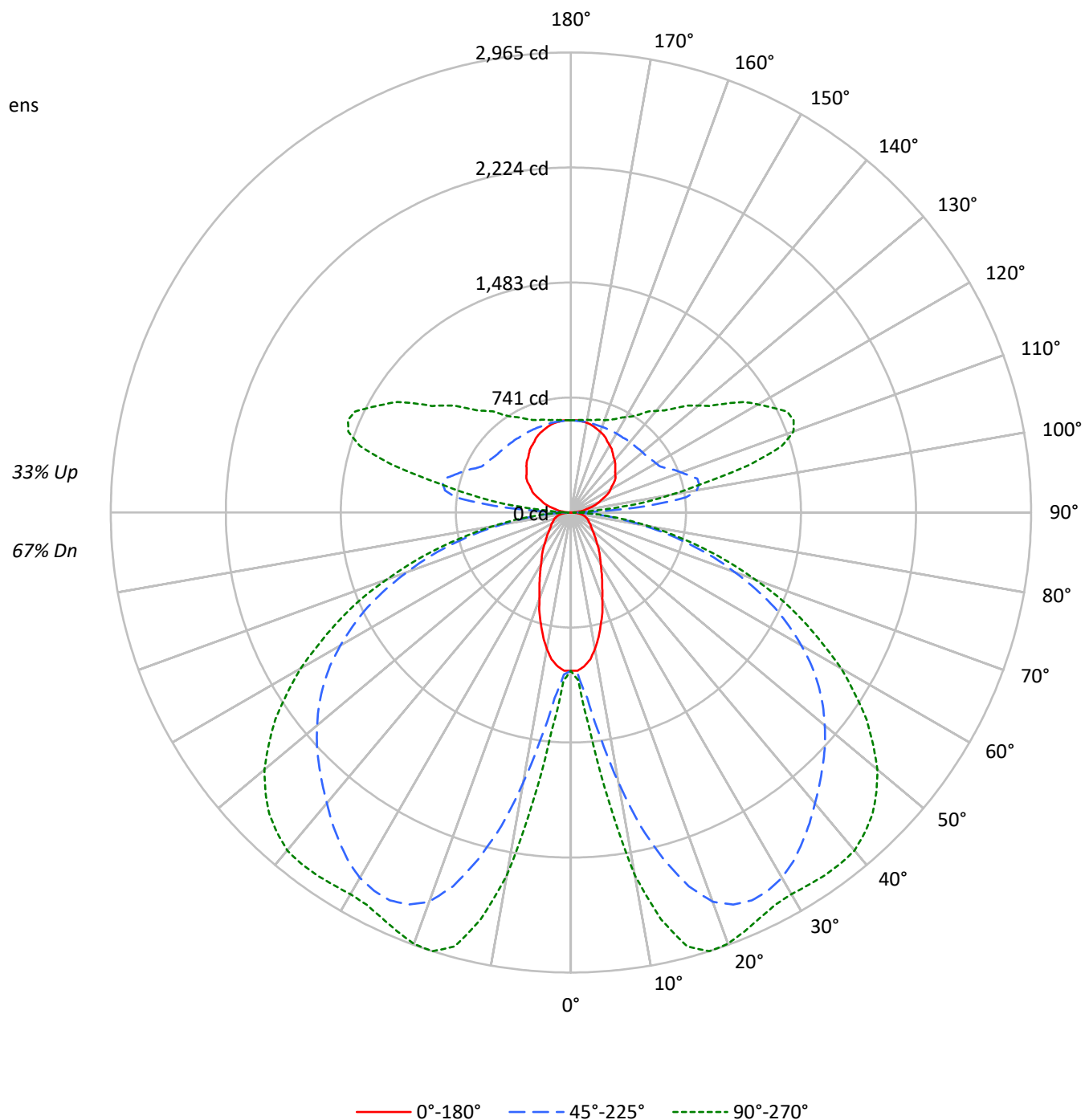
Lumens per Lamp: N/A
Luminaire Lumens: 11751.1 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 112
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: P936994

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4732	4732	4732
5°	4623	5470	6361
10°	4194	7973	10546
15°	3564	10416	12734
20°	2901	12071	12977
25°	2421	12632	12714
30°	2041	12711	12690
35°	1805	12500	13018
40°	1573	12226	13357
45°	1424	12025	13409
50°	1306	11844	13187
55°	1252	11580	12603
60°	1281	11071	11680
65°	1332	10298	10412
70°	1419	8981	8796
75°	1574	7323	6864
80°	1719	5078	4625
85°	1528	2695	2368

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13409 cd/sqm

TEST NUMBER: P936994

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.9	1.1
10°-20°	584.8	5.0
20°-30°	1022.8	8.7
30°-40°	1316.7	11.2
40°-50°	1470.7	12.5
50°-60°	1408.6	12.0
60°-70°	1116.3	9.5
70°-80°	656.4	5.6
80°-90°	184.6	1.6
90°-100°	290.1	2.5
100°-110°	762.7	6.5
110°-120°	790.9	6.7
120°-130°	634.4	5.4
130°-140°	497.8	4.2
140°-150°	382.1	3.3
150°-160°	275.1	2.3
160°-170°	168.3	1.4
170°-180°	56.9	0.5
0°-30°	1739.5	14.8
0°-40°	3056.2	26.0
0°-60°	5935.5	50.5
0°-90°	7892.9	67.2
90°-120°	1843.7	15.7
90°-150°	3357.9	28.6
90°-180°	3858.0	32.8
0°-180°	11751.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	994	1066	1200	1358	1407	92
15°	744	1374	2315	2807	2896	207
25°	476	1558	2758	2880	2883	219
35°	321	1489	2598	2745	2853	201
45°	220	1187	2296	2630	2748	170
55°	158	754	1948	2263	2325	143
65°	125	400	1446	1627	1650	123
75°	92	246	794	872	876	96
85°	33	75	197	216	220	35
90°	4	11	30	15	15	6
95°	38	150	500	258	175	43
105°	137	208	843	1280	1194	146
115°	244	296	676	1347	1538	241
125°	340	381	614	1038	1225	301
135°	405	445	595	838	950	313
145°	469	499	588	715	771	294
155°	530	545	588	645	664	244
165°	572	580	588	611	618	162
175°	595	595	592	599	599	56
180°	595	595	595	595	595	

TEST NUMBER: P936994

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-3500K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0	1020.0
2.5°	1020.0	1020.0	1026.6	1029.9	1036.3	1039.6	1046.2	1052.8	1072.5	1075.8	1082.3
5°	993.7	1006.9	1049.5	1065.9	1111.8	1174.1	1200.4	1243.0	1331.5	1357.8	1374.1
7.5°	954.4	983.9	1088.9	1115.1	1229.9	1393.9	1462.7	1554.6	1695.6	1764.5	1820.3
10°	892.1	954.4	1141.3	1203.6	1390.6	1639.8	1767.7	1895.7	2108.8	2204.0	2240.0
12.5°	823.2	924.9	1197.1	1282.4	1551.3	1915.3	2069.5	2210.5	2453.2	2581.1	2600.8
15°	744.5	882.3	1249.5	1374.1	1721.8	2144.9	2315.4	2489.3	2715.6	2807.4	2830.4
17.5°	675.6	849.4	1298.8	1430.0	1853.0	2351.6	2525.3	2669.7	2853.3	2915.6	2932.0
20°	590.3	797.0	1331.5	1502.0	1990.8	2502.4	2669.7	2781.1	2905.8	2945.2	2951.7
22.5°	528.0	741.2	1351.3	1528.3	2082.6	2594.2	2735.3	2823.8	2909.0	2922.2	2925.5
25°	475.6	678.9	1348.0	1557.9	2161.4	2650.0	2758.3	2823.8	2873.0	2879.6	2879.6
27.5°	426.4	610.0	1334.8	1564.5	2220.4	2663.1	2748.4	2794.3	2817.3	2830.4	2830.4
30°	383.7	544.4	1302.0	1551.3	2246.6	2650.0	2718.8	2741.8	2764.8	2784.4	2794.3
32.5°	351.0	482.1	1252.8	1525.0	2249.8	2617.2	2666.4	2679.5	2712.3	2758.3	2774.6
35°	321.4	419.8	1197.1	1489.0	2230.2	2564.7	2597.5	2610.6	2676.2	2745.1	2768.0
37.5°	291.9	373.8	1124.9	1426.7	2200.7	2502.4	2525.3	2548.3	2650.0	2732.0	2758.3
40°	262.4	334.5	1039.6	1357.8	2154.8	2427.0	2446.6	2482.7	2617.2	2712.3	2738.5
42.5°	239.4	301.7	947.9	1285.7	2095.8	2341.7	2371.2	2423.7	2577.8	2679.5	2709.0
45°	219.8	268.9	849.4	1187.2	2020.3	2253.1	2295.8	2367.9	2531.9	2630.4	2656.5
47.5°	200.1	245.9	747.8	1085.6	1938.3	2164.6	2220.4	2302.3	2469.6	2564.7	2587.7
50°	183.6	223.1	646.1	977.3	1849.7	2069.5	2135.1	2220.4	2390.9	2479.5	2508.9
52.5°	170.5	203.3	551.0	869.1	1748.1	1971.0	2046.5	2135.1	2295.8	2381.0	2400.7
55°	157.5	186.9	469.0	754.4	1643.1	1866.1	1948.2	2033.4	2190.8	2263.0	2276.1
57.5°	150.9	173.8	400.1	646.1	1531.6	1748.1	1839.9	1918.6	2066.2	2121.9	2135.1
60°	141.0	164.0	347.7	554.3	1410.3	1636.5	1715.2	1794.0	1918.6	1964.6	1974.3
62.5°	131.2	157.5	308.3	465.7	1285.7	1505.3	1584.1	1656.2	1761.2	1794.0	1807.1
65°	124.6	150.9	278.8	400.1	1157.8	1367.6	1446.3	1508.6	1593.9	1626.8	1633.2
67.5°	118.0	144.3	255.8	344.4	1029.9	1229.9	1288.9	1348.0	1413.6	1446.3	1449.6
70°	108.2	137.8	236.1	305.0	898.7	1072.5	1121.6	1183.9	1236.4	1252.8	1262.7
72.5°	101.6	127.9	223.1	275.5	764.2	921.6	967.5	1003.6	1049.5	1065.9	1065.9
75°	91.9	114.8	209.9	245.9	626.5	754.4	793.7	829.8	865.8	872.4	862.6
77.5°	82.0	101.6	180.4	206.6	488.7	596.9	629.7	649.4	678.9	685.5	688.8
80°	68.9	88.6	141.0	160.7	354.2	439.4	462.4	478.9	505.0	505.0	511.6
82.5°	52.5	68.9	101.6	114.8	239.4	301.7	321.4	331.2	347.7	347.7	347.7
85°	32.8	42.6	65.6	75.4	144.3	183.6	196.8	200.1	213.2	216.5	216.5
87.5°	16.4	23.0	42.6	45.9	75.4	95.2	95.2	101.6	101.6	98.4	95.2
90°	4.0	7.2	10.4	11.1	17.5	26.1	30.3	26.9	20.3	15.2	15.2
92.5°	16.0	43.1	70.3	77.1	108.4	150.1	170.9	149.8	107.6	75.9	72.9
95°	38.4	88.1	137.8	150.2	266.7	422.0	499.7	445.9	338.4	257.7	248.5
97.5°	66.3	110.1	154.0	164.9	359.2	618.2	747.8	713.8	645.7	594.8	577.3
100°	87.9	127.6	167.3	177.3	392.9	680.3	824.0	826.6	831.5	835.2	814.4
102.5°	106.3	143.4	180.4	189.7	408.3	699.9	845.6	889.0	975.6	1040.5	1022.8
105°	137.4	168.8	200.3	208.1	419.9	702.1	843.2	940.3	1134.6	1280.2	1270.6
107.5°	169.4	198.6	227.9	235.3	421.9	670.8	795.3	930.7	1201.7	1404.9	1407.2
110°	190.9	217.3	243.9	250.5	418.8	643.1	755.3	906.8	1209.6	1436.7	1446.7

TEST NUMBER: P936994

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	212.1	237.3	262.5	268.8	418.9	619.0	719.0	873.9	1183.9	1416.4	1431.7
115°	244.1	267.3	290.6	296.4	422.8	591.3	675.5	824.8	1123.4	1347.3	1368.4
117.5°	275.6	296.7	317.8	323.2	430.6	573.8	645.5	780.2	1049.7	1251.9	1275.3
120°	294.0	313.9	333.8	338.8	437.0	568.0	633.5	756.6	1002.8	1187.5	1210.3
122.5°	311.9	332.0	352.0	357.1	446.1	564.9	624.3	735.2	957.0	1123.3	1145.7
125°	339.5	357.8	376.1	380.6	458.5	562.4	614.3	708.5	896.9	1038.2	1058.9
127.5°	361.9	380.3	398.7	403.4	470.9	561.0	605.9	686.8	848.6	969.9	987.3
130°	373.8	393.7	413.7	418.6	479.9	561.8	602.7	674.7	818.7	926.7	942.8
132.5°	386.2	406.1	426.1	431.0	487.3	562.4	600.0	664.4	793.3	889.9	904.4
135°	404.7	422.8	440.8	445.4	495.3	561.8	595.2	649.1	757.1	838.0	850.5
137.5°	423.5	441.4	459.3	463.8	507.3	565.3	594.4	640.0	731.3	799.7	809.9
140°	439.0	455.5	472.0	476.2	514.6	565.9	591.6	631.0	709.8	768.9	778.4
142.5°	451.0	466.2	481.5	485.3	520.7	567.9	591.6	626.2	695.5	747.4	755.6
145°	469.4	482.7	496.0	499.3	528.8	568.0	587.6	615.9	672.6	715.0	721.2
147.5°	487.7	500.7	513.7	516.9	540.4	571.9	587.6	609.9	654.4	687.8	692.9
150°	499.7	511.4	523.2	526.1	546.6	573.9	587.6	606.4	644.1	672.3	676.5
152.5°	512.1	521.0	529.8	532.1	550.6	575.3	587.6	603.7	635.8	659.9	663.1
155°	530.4	537.0	543.6	545.3	559.4	578.2	587.6	600.4	625.9	645.1	647.2
157.5°	544.0	550.4	556.8	558.4	568.1	581.1	587.6	597.5	617.3	632.3	633.7
160°	553.2	558.2	563.2	564.4	572.2	582.5	587.6	596.1	613.1	625.9	626.7
162.5°	562.4	566.2	569.9	570.8	576.5	583.9	587.6	594.8	609.2	620.0	620.7
165°	572.4	575.8	579.1	579.9	582.5	585.9	587.6	592.7	603.0	610.8	611.6
167.5°	581.6	583.1	584.8	585.2	587.3	590.1	591.6	595.0	601.7	606.8	607.2
170°	587.6	589.2	590.8	591.2	591.3	591.5	591.6	595.0	601.7	606.8	606.8
172.5°	590.8	591.2	591.5	591.6	591.6	591.6	591.6	594.3	599.6	603.6	603.3
175°	595.2	595.2	595.2	595.2	594.0	592.3	591.6	593.2	596.6	599.1	599.1
177.5°	595.2	595.2	595.2	595.2	594.2	592.9	592.3	593.7	596.3	598.4	598.0
180°	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2

TEST NUMBER: P936994

CATALOG NUMBER: SQ4-FB-050U-125D-B2750-1D-UNV-W2A-W-8-3500K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1020.0	1020.0
2.5°	1088.9	1082.3
5°	1400.4	1407.0
7.5°	1885.8	1882.6
10°	2345.0	2374.5
12.5°	2679.5	2686.1
15°	2882.9	2896.0
17.5°	2961.6	2964.8
20°	2964.8	2958.3
22.5°	2928.8	2922.2
25°	2886.2	2882.9
27.5°	2846.7	2850.0
30°	2830.4	2840.2
32.5°	2830.4	2846.7
35°	2836.9	2853.3
37.5°	2833.6	2853.3
40°	2820.6	2843.5
42.5°	2784.4	2800.9
45°	2728.7	2748.4
47.5°	2656.5	2669.7
50°	2564.7	2577.8
52.5°	2449.9	2453.2
55°	2312.1	2325.3
57.5°	2164.6	2167.8
60°	2000.6	2010.5
62.5°	1826.8	1826.8
65°	1643.1	1649.7
67.5°	1452.9	1469.3
70°	1259.4	1262.7
72.5°	1069.2	1069.2
75°	872.4	875.7
77.5°	685.5	685.5
80°	508.3	511.6
82.5°	351.0	357.5
85°	219.8	219.8
87.5°	101.6	91.9
90°	15.2	15.2
92.5°	60.8	48.7
95°	211.9	175.4
97.5°	507.8	438.2
100°	731.6	648.6
102.5°	951.8	880.7
105°	1232.5	1194.3
107.5°	1416.4	1425.6
110°	1486.4	1526.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1492.7	1553.8
115°	1453.1	1537.8
117.5°	1369.3	1463.2
120°	1301.6	1392.8
122.5°	1235.8	1325.8
125°	1141.8	1224.7
127.5°	1057.3	1127.2
130°	1007.5	1072.1
132.5°	962.3	1020.2
135°	900.4	950.3
137.5°	850.8	891.6
140°	816.6	854.8
142.5°	788.4	821.2
145°	746.1	770.9
147.5°	713.6	734.2
150°	693.1	709.8
152.5°	675.7	688.3
155°	655.5	663.9
157.5°	639.6	645.5
160°	630.1	633.5
162.5°	623.9	627.1
165°	614.9	618.3
167.5°	608.5	610.0
170°	606.8	606.8
172.5°	602.0	600.8
175°	599.1	599.1
177.5°	596.6	595.2
180°	595.2	595.2

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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	7.83	8.93	8.62	9.74	10.74	21.01	22.11	21.80	22.92	23.92
	3H	8.56	9.54	9.35	10.37	11.40	22.87	23.86	23.67	24.68	25.71
	4H	8.86	9.80	9.68	10.63	11.67	23.52	24.46	24.34	25.29	26.33
	6H	9.13	9.99	9.96	10.83	11.89	23.97	24.83	24.80	25.67	26.73
	8H	9.20	10.03	10.04	10.89	11.94	24.09	24.92	24.93	25.78	26.83
	12H	9.23	10.02	10.07	10.87	11.95	24.17	24.96	25.02	25.81	26.89
4H	2H	15.08	16.01	15.90	16.84	17.88	21.31	22.25	22.13	23.08	24.12
	3H	16.67	17.45	17.50	18.32	19.37	23.38	24.17	24.21	25.03	26.09
	4H	16.77	17.49	17.62	18.35	19.43	24.16	24.87	25.00	25.74	26.82
	6H	16.79	17.42	17.66	18.30	19.39	24.71	25.33	25.57	26.22	27.31
	8H	16.78	17.36	17.64	18.24	19.34	24.88	25.46	25.75	26.34	27.44
	12H	16.75	17.27	17.63	18.17	19.28	24.99	25.51	25.87	26.41	27.52
8H	4H	18.24	18.82	19.10	19.70	20.80	24.24	24.82	25.10	25.70	26.80
	6H	18.49	18.97	19.38	19.90	21.00	24.88	25.36	25.77	26.29	27.39
	8H	18.51	18.94	19.41	19.86	20.97	25.10	25.53	26.01	26.45	27.57
	12H	18.49	18.87	19.40	19.78	20.95	25.26	25.64	26.17	26.55	27.71
12H	4H	18.39	18.92	19.28	19.82	20.92	24.20	24.73	25.09	25.63	26.74
	6H	18.75	19.18	19.65	20.10	21.21	24.87	25.30	25.77	26.21	27.33
	8H	18.83	19.21	19.74	20.12	21.29	25.11	25.49	26.02	26.40	27.56