

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: P937896

Luminaire Tested: SQ4-FB-125U-050D-B2750-1D-UNV-W2A-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937896
REPORT IS A COMBINATION OF REPORTS P933613 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-050D-B2750-1D-UNV-W2A-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

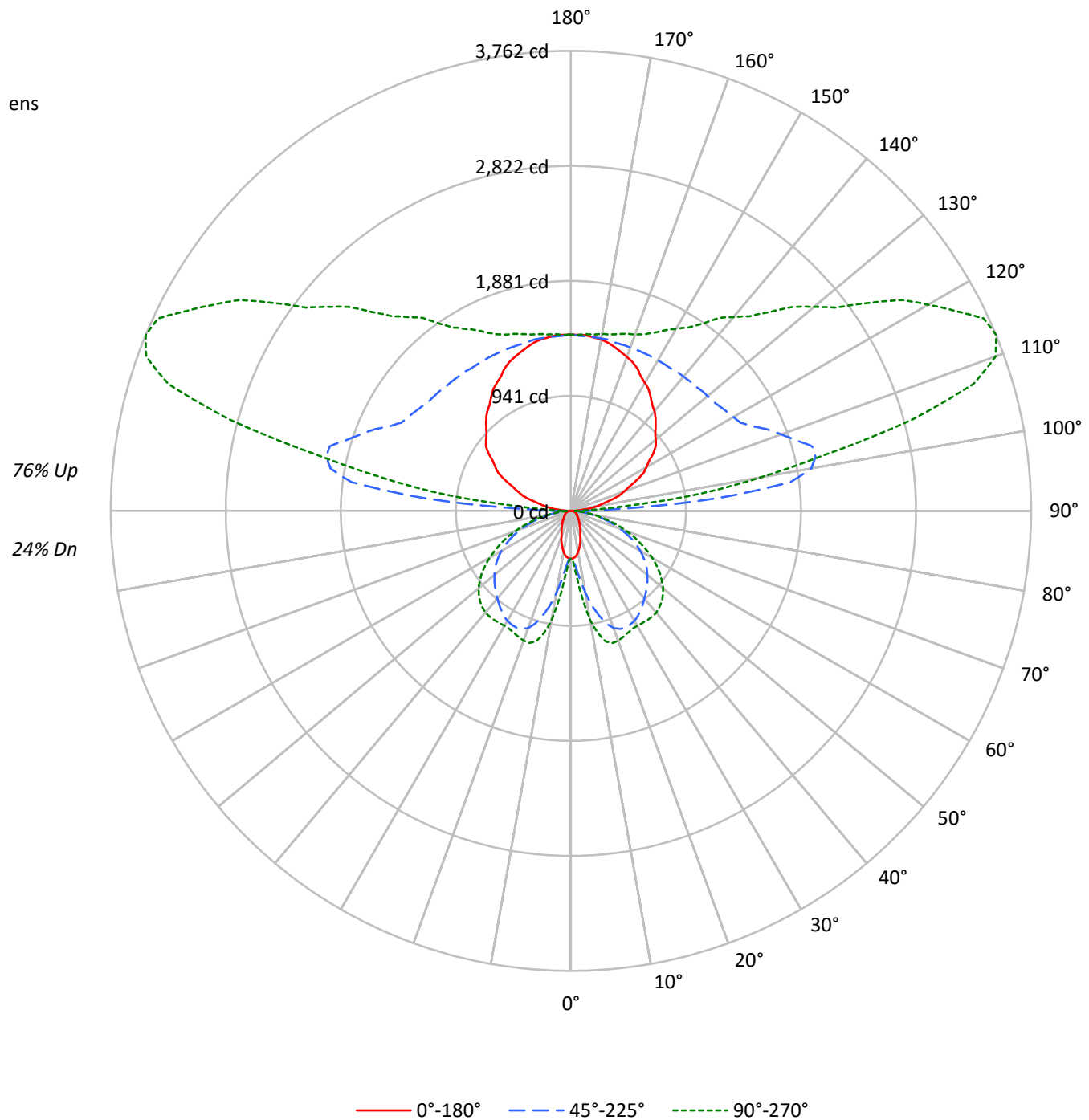
Lumens per Lamp: N/A
Luminaire Lumens: 12361.5 lumens
Efficiency: N/A
Efficacy: 129.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 95.2
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: P937896

CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-W2A-W-8-5000K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33			24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27			20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22			16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	21	20	19			13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16			11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13			10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12			8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10			7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9			6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8			6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7			5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1808	1808	1808
5°	1766	2089	2430
10°	1602	3046	4028
15°	1361	3979	4864
20°	1108	4611	4957
25°	925	4825	4856
30°	779	4855	4847
35°	689	4775	4973
40°	601	4670	5102
45°	544	4593	5122
50°	499	4525	5037
55°	478	4423	4814
60°	490	4229	4461
65°	509	3934	3977
70°	543	3430	3360
75°	601	2797	2622
80°	656	1939	1766
85°	582	1030	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5122 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	0.4
10°-20°	223.4	1.8
20°-30°	390.7	3.2
30°-40°	502.9	4.1
40°-50°	561.8	4.5
50°-60°	538.1	4.4
60°-70°	426.4	3.4
70°-80°	250.7	2.0
80°-90°	75.2	0.6
90°-100°	702.5	5.7
100°-110°	1846.8	14.9
110°-120°	1914.9	15.5
120°-130°	1536.0	12.4
130°-140°	1205.2	9.7
140°-150°	925.0	7.5
150°-160°	666.2	5.4
160°-170°	407.6	3.3
170°-180°	137.7	1.1
0°-30°	664.5	5.4
0°-40°	1167.4	9.4
0°-60°	2267.2	18.3
0°-90°	3019.6	24.4
90°-120°	4464.2	36.1
90°-150°	8130.5	65.8
90°-180°	9342.0	75.6
0°-180°	12361.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	380	407	458	519	537	35
15°	284	525	884	1072	1106	79
25°	182	595	1054	1100	1101	84
35°	123	569	992	1049	1090	77
45°	84	454	877	1005	1050	65
55°	60	288	744	864	888	55
65°	48	153	552	621	630	47
75°	35	94	303	333	334	37
85°	12	29	75	83	84	13
90°	10	27	74	37	37	9
95°	93	364	1210	624	425	103
105°	333	504	2042	3100	2892	353
115°	591	718	1636	3262	3724	584
125°	822	922	1488	2514	2965	730
135°	980	1078	1441	2029	2301	758
145°	1136	1209	1423	1731	1867	712
155°	1284	1320	1423	1562	1607	590
165°	1386	1404	1423	1479	1497	391
175°	1441	1441	1432	1451	1451	137
180°	1441	1441	1441	1441	1441	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	389.6	389.6	389.6	389.6	389.6	389.6	389.6	389.6	389.6	389.6	389.6
2.5°	389.6	389.6	392.1	393.4	395.8	397.1	399.7	402.2	409.7	410.9	413.4
5°	379.6	384.6	400.9	407.1	424.7	448.5	458.5	474.8	508.7	518.7	524.9
7.5°	364.5	375.8	415.9	425.9	469.8	532.4	558.7	593.8	647.6	674.0	695.3
10°	340.7	364.5	436.0	459.8	531.2	626.3	675.3	724.1	805.5	841.8	855.6
12.5°	314.5	353.2	457.3	489.8	592.5	731.6	790.5	844.3	937.1	985.9	993.4
15°	284.4	337.0	477.3	524.9	657.7	819.3	884.5	950.8	1037.3	1072.3	1081.1
17.5°	258.1	324.5	496.1	546.2	707.8	898.2	964.6	1019.7	1089.9	1113.7	1120.0
20°	225.5	304.4	508.7	573.8	760.5	955.9	1019.7	1062.3	1110.0	1125.0	1127.5
22.5°	201.7	283.1	516.1	583.8	795.5	991.0	1044.8	1078.7	1111.2	1116.2	1117.4
25°	181.7	259.3	514.9	595.1	825.6	1012.3	1053.6	1078.7	1097.4	1100.0	1100.0
27.5°	162.9	233.0	509.9	597.6	848.2	1017.2	1049.8	1067.4	1076.2	1081.1	1081.1
30°	146.5	208.0	497.4	592.5	858.2	1012.3	1038.5	1047.3	1056.1	1063.6	1067.4
32.5°	134.0	184.2	478.6	582.5	859.4	999.7	1018.5	1023.5	1036.0	1053.6	1059.8
35°	122.7	160.4	457.3	568.7	851.9	979.7	992.2	997.2	1022.3	1048.6	1057.3
37.5°	111.5	142.8	429.7	545.0	840.6	955.9	964.6	973.4	1012.3	1043.6	1053.6
40°	100.2	127.8	397.1	518.7	823.0	927.1	934.6	948.4	999.7	1036.0	1046.1
42.5°	91.4	115.3	362.0	491.1	800.5	894.5	905.8	925.8	984.7	1023.5	1034.8
45°	84.0	102.7	324.5	453.5	771.7	860.7	876.9	904.5	967.2	1004.7	1014.7
47.5°	76.4	94.0	285.6	414.7	740.4	826.9	848.2	879.5	943.3	979.7	988.5
50°	70.1	85.2	246.8	373.3	706.6	790.5	815.6	848.2	913.3	947.1	958.4
52.5°	65.1	77.7	210.4	331.9	667.7	752.9	781.8	815.6	876.9	909.5	917.0
55°	60.1	71.5	179.1	288.1	627.6	712.8	744.1	776.7	836.9	864.4	869.5
57.5°	57.6	66.4	152.8	246.8	585.1	667.7	702.8	732.9	789.2	810.5	815.6
60°	53.9	62.7	132.8	211.7	538.7	625.1	655.2	685.3	732.9	750.4	754.2
62.5°	50.2	60.1	117.8	177.9	491.1	575.1	605.0	632.7	672.8	685.3	690.3
65°	47.6	57.6	106.5	152.8	442.2	522.4	552.5	576.3	608.9	621.4	623.9
67.5°	45.1	55.1	97.7	131.5	393.4	469.8	492.3	514.9	539.9	552.5	553.7
70°	41.4	52.6	90.2	116.5	343.2	409.7	428.4	452.2	472.3	478.6	482.3
72.5°	38.9	48.8	85.2	105.3	291.9	352.0	369.6	383.3	400.9	407.1	407.1
75°	35.1	43.8	80.1	94.0	239.3	288.1	303.2	316.9	330.7	333.3	329.5
77.5°	31.3	38.9	68.9	78.9	186.7	228.0	240.5	248.1	259.3	261.8	263.1
80°	26.3	33.8	53.9	61.4	135.3	167.8	176.6	182.9	193.0	193.0	195.4
82.5°	20.1	26.3	38.9	43.8	91.4	115.3	122.7	126.6	132.8	132.8	132.8
85°	12.5	16.3	25.0	28.8	55.1	70.1	75.2	76.4	81.4	82.7	82.7
87.5°	6.3	8.8	16.3	17.6	28.8	36.3	36.3	38.9	38.9	37.5	36.3
90°	9.7	17.5	25.1	27.1	42.6	63.2	73.5	65.3	48.9	36.7	36.7
92.5°	38.7	104.4	170.3	186.7	262.5	363.4	413.9	362.8	260.5	183.7	176.4
95°	92.8	213.2	333.6	363.7	645.8	1021.9	1209.9	1079.7	819.2	623.8	601.7
97.5°	160.6	266.8	372.9	399.5	869.8	1497.0	1810.6	1728.3	1563.6	1440.1	1398.0
100°	212.8	309.1	405.4	429.5	951.4	1647.3	1995.3	2001.3	2013.3	2022.4	1972.2
102.5°	257.2	347.1	436.9	459.4	988.8	1694.6	2047.5	2152.4	2362.2	2519.5	2476.5
105°	332.7	408.8	484.8	503.9	1016.5	1700.0	2041.7	2276.8	2747.1	3099.8	3076.7
107.5°	410.1	481.0	551.9	569.6	1021.6	1624.3	1925.6	2253.6	2909.6	3401.5	3407.1
110°	462.3	526.4	590.5	606.4	1014.0	1557.3	1829.0	2195.6	2928.9	3478.9	3503.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	513.6	574.6	635.7	650.9	1014.2	1498.7	1740.9	2116.2	2866.6	3429.6	3466.5
115°	590.9	647.3	703.5	717.6	1023.6	1431.5	1635.5	1997.0	2720.0	3262.3	3313.6
117.5°	667.3	718.5	769.6	782.4	1042.6	1389.5	1563.0	1889.2	2541.7	3031.1	3088.0
120°	711.8	760.0	808.1	820.1	1058.0	1375.3	1533.9	1832.0	2428.2	2875.4	2930.6
122.5°	755.3	803.9	852.5	864.6	1080.3	1367.8	1511.7	1780.1	2317.1	2719.7	2774.2
125°	822.1	866.4	910.6	921.7	1110.2	1361.8	1487.5	1715.6	2171.6	2513.7	2563.8
127.5°	876.3	921.0	965.7	976.9	1140.3	1358.2	1467.2	1663.0	2054.6	2348.3	2390.6
130°	905.2	953.4	1001.5	1013.6	1162.2	1360.4	1459.5	1633.8	1982.4	2243.8	2283.0
132.5°	935.2	983.4	1031.5	1043.6	1179.9	1361.8	1452.7	1608.7	1920.8	2154.8	2189.9
135°	979.8	1023.6	1067.5	1078.4	1199.3	1360.5	1441.1	1571.7	1833.1	2029.1	2059.3
137.5°	1025.2	1068.6	1112.0	1122.9	1228.3	1368.9	1439.1	1549.6	1770.6	1936.3	1961.0
140°	1062.9	1102.9	1142.8	1152.8	1246.0	1370.3	1432.4	1527.8	1718.7	1861.8	1884.9
142.5°	1091.9	1128.9	1165.8	1175.1	1260.8	1375.2	1432.4	1516.2	1683.8	1809.5	1829.4
145°	1136.4	1168.6	1200.9	1209.0	1280.2	1375.2	1422.7	1491.2	1628.4	1731.3	1746.3
147.5°	1180.9	1212.3	1243.7	1251.6	1308.6	1384.7	1422.7	1476.7	1584.5	1665.5	1677.9
150°	1209.9	1238.3	1266.7	1273.8	1323.4	1389.6	1422.7	1468.2	1559.4	1627.8	1637.9
152.5°	1239.9	1261.4	1282.8	1288.3	1333.1	1392.8	1422.7	1461.6	1539.4	1597.8	1605.5
155°	1284.4	1300.3	1316.2	1320.2	1354.4	1399.9	1422.7	1453.7	1515.6	1562.0	1567.1
157.5°	1317.3	1332.7	1348.2	1352.1	1375.6	1407.0	1422.7	1446.8	1494.9	1531.0	1534.6
160°	1339.5	1351.6	1363.6	1366.6	1385.3	1410.2	1422.7	1443.3	1484.6	1515.5	1517.6
162.5°	1361.8	1370.7	1379.8	1382.0	1395.6	1413.6	1422.7	1440.0	1474.9	1501.0	1503.0
165°	1386.0	1394.2	1402.3	1404.4	1410.4	1418.6	1422.7	1435.2	1460.1	1478.8	1480.9
167.5°	1408.2	1412.0	1415.9	1416.9	1422.0	1428.9	1432.4	1440.5	1456.9	1469.1	1469.9
170°	1422.7	1426.6	1430.5	1431.4	1431.7	1432.2	1432.4	1440.5	1456.9	1469.1	1469.1
172.5°	1430.4	1431.3	1432.2	1432.4	1432.4	1432.4	1432.4	1438.8	1451.7	1461.4	1460.7
175°	1441.1	1441.1	1441.1	1441.1	1438.2	1434.3	1432.4	1436.5	1444.6	1450.8	1450.8
177.5°	1441.1	1441.1	1441.1	1441.1	1438.8	1435.8	1434.3	1437.5	1444.0	1448.8	1448.0
180°	1441.1	1441.1	1441.1	1441.1	1441.1	1441.1	1441.1	1441.1	1441.1	1441.1	1441.1

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	389.6	389.6
2.5°	415.9	413.4
5°	534.9	537.4
7.5°	720.3	719.1
10°	895.7	907.0
12.5°	1023.5	1026.0
15°	1101.2	1106.2
17.5°	1131.3	1132.5
20°	1132.5	1130.0
22.5°	1118.7	1116.2
25°	1102.4	1101.2
27.5°	1087.4	1088.7
30°	1081.1	1084.9
32.5°	1081.1	1087.4
35°	1083.6	1089.9
37.5°	1082.4	1089.9
40°	1077.4	1086.1
42.5°	1063.6	1069.9
45°	1042.3	1049.8
47.5°	1014.7	1019.7
50°	979.7	984.7
52.5°	935.8	937.1
55°	883.2	888.2
57.5°	826.9	828.1
60°	764.2	767.9
62.5°	697.8	697.8
65°	627.6	630.2
67.5°	555.0	561.2
70°	481.1	482.3
72.5°	408.4	408.4
75°	333.3	334.5
77.5°	261.8	261.8
80°	194.2	195.4
82.5°	134.0	136.6
85°	84.0	84.0
87.5°	38.9	35.1
90°	36.7	36.7
92.5°	147.2	118.0
95°	513.1	424.6
97.5°	1229.5	1061.0
100°	1771.4	1570.7
102.5°	2304.6	2132.6
105°	2984.2	2891.9
107.5°	3429.5	3451.8
110°	3599.3	3695.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3614.4	3762.2
115°	3518.6	3723.6
117.5°	3315.3	3542.8
120°	3151.6	3372.5
122.5°	2992.2	3210.1
125°	2764.6	2965.4
127.5°	2560.0	2729.3
130°	2439.4	2595.9
132.5°	2330.0	2470.1
135°	2180.1	2300.9
137.5°	2059.8	2158.8
140°	1977.4	2069.7
142.5°	1908.9	1988.5
145°	1806.4	1866.6
147.5°	1727.8	1777.7
150°	1678.3	1718.7
152.5°	1635.9	1666.4
155°	1587.2	1607.4
157.5°	1548.8	1563.0
160°	1525.7	1533.9
162.5°	1510.7	1518.5
165°	1489.0	1497.2
167.5°	1473.4	1476.8
170°	1469.1	1469.1
172.5°	1457.6	1454.6
175°	1450.8	1450.8
177.5°	1444.5	1441.1
180°	1441.1	1441.1

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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	0.05	0.73	1.19	1.87	3.46	13.23	13.91	14.37	15.05	16.64
	3H	0.74	1.35	1.89	2.50	4.11	15.05	15.67	16.21	16.81	18.42
	4H	1.03	1.61	2.19	2.76	4.37	15.69	16.28	16.85	17.42	19.03
	6H	1.27	1.81	2.44	2.96	4.58	16.11	16.65	17.28	17.80	19.42
	8H	1.33	1.85	2.50	3.01	4.62	16.23	16.74	17.40	17.90	19.52
	12H	1.34	1.83	2.52	2.99	4.63	16.29	16.77	17.46	17.93	19.57
4H	2H	7.24	7.83	8.41	8.97	10.58	13.48	14.06	14.65	15.21	16.82
	3H	8.79	9.28	9.97	10.45	12.08	15.51	16.00	16.68	17.17	18.79
	4H	8.88	9.33	10.06	10.49	12.13	16.27	16.72	17.44	17.88	19.52
	6H	8.88	9.27	10.06	10.45	12.08	16.80	17.18	17.98	18.36	20.00
	8H	8.85	9.21	10.03	10.39	12.04	16.95	17.31	18.13	18.49	20.14
	12H	8.80	9.13	10.00	10.31	11.97	17.04	17.37	18.23	18.55	20.20
8H	4H	10.31	10.67	11.49	11.84	13.49	16.31	16.67	17.49	17.85	19.50
	6H	10.54	10.84	11.74	12.06	13.70	16.93	17.23	18.13	18.45	20.09
	8H	10.56	10.82	11.76	12.01	13.68	17.15	17.41	18.36	18.60	20.27
	12H	10.52	10.75	11.73	11.94	13.63	17.29	17.51	18.50	18.71	20.40
12H	4H	10.44	10.77	11.64	11.95	13.61	16.26	16.58	17.45	17.77	19.42
	6H	10.80	11.06	12.00	12.25	13.92	16.91	17.17	18.12	18.37	20.03
	8H	10.86	11.09	12.07	12.28	13.98	17.14	17.36	18.34	18.55	20.25

END OF REPORT