

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: P936868

Luminaire Tested: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936868
REPORT IS A COMBINATION OF REPORTS P933487 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

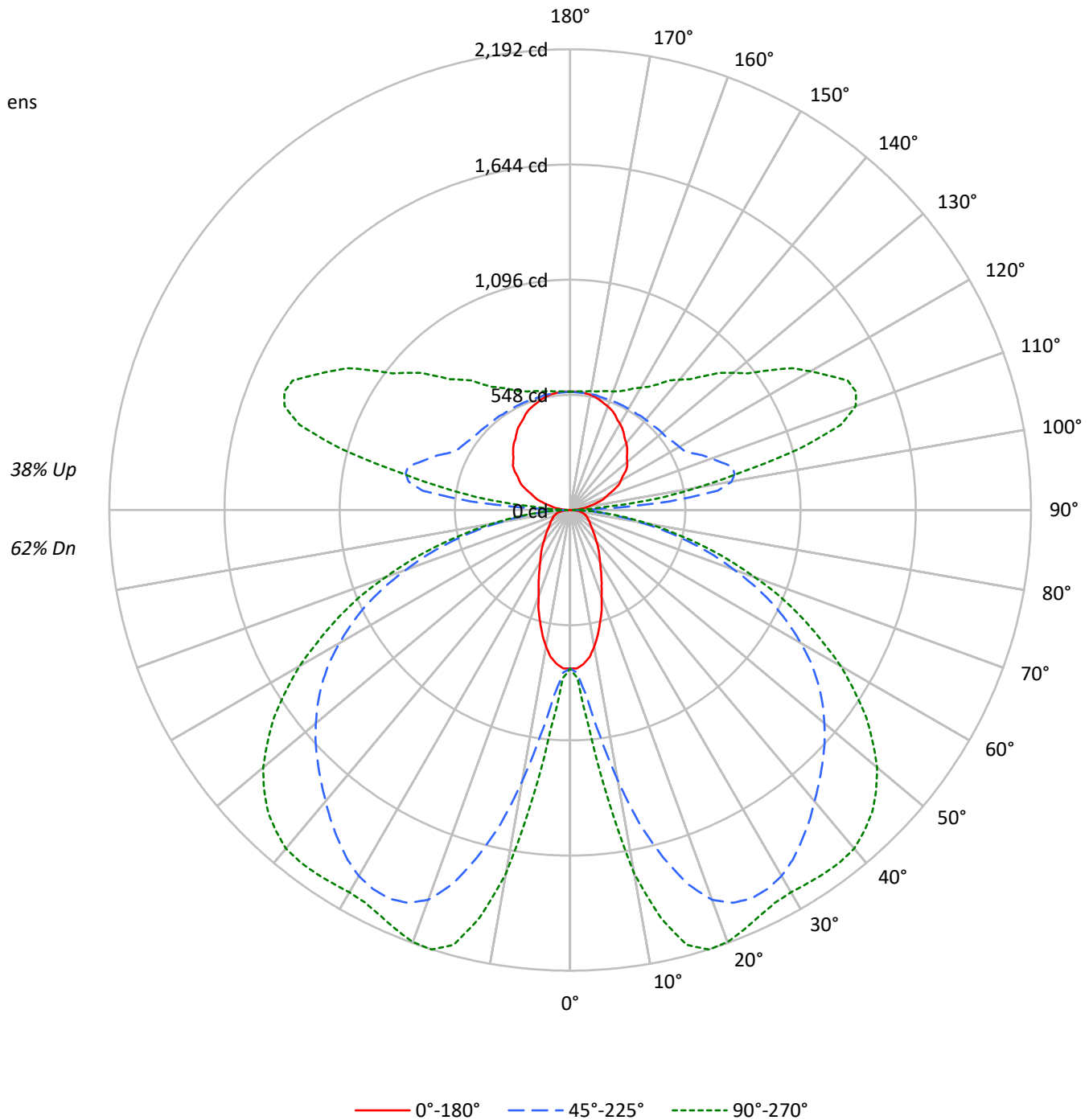
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9490.8 lumens
Efficiency: N/A
Efficacy: 105.0 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): 90.4
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: P936868
CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P936868

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

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	50	30	10	0
RCR																					
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3500	3500	3500
5°	3418	4044	4704
10°	3101	5896	7798
15°	2635	7702	9416
20°	2145	8926	9596
25°	1790	9341	9401
30°	1510	9400	9383
35°	1335	9243	9626
40°	1163	9040	9877
45°	1053	8892	9916
50°	966	8758	9751
55°	925	8562	9319
60°	947	8186	8637
65°	985	7615	7699
70°	1049	6641	6504
75°	1163	5415	5075
80°	1270	3755	3421
85°	1127	1992	1751

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9916 cd/sqm



TEST NUMBER: P936868

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.6	1.0
10°-20°	432.4	4.6
20°-30°	756.3	8.0
30°-40°	973.6	10.3
40°-50°	1087.5	11.5
50°-60°	1041.6	11.0
60°-70°	825.5	8.7
70°-80°	485.4	5.1
80°-90°	137.0	1.4
90°-100°	274.8	2.9
100°-110°	722.3	7.6
110°-120°	749.0	7.9
120°-130°	600.8	6.3
130°-140°	471.4	5.0
140°-150°	361.8	3.8
150°-160°	260.6	2.7
160°-170°	159.4	1.7
170°-180°	53.9	0.6
0°-30°	1286.3	13.6
0°-40°	2259.9	23.8
0°-60°	4389.0	46.2
0°-90°	5836.9	61.5
90°-120°	1746.1	18.4
90°-150°	3180.1	33.5
90°-180°	3654.0	38.5
0°-180°	9490.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	735	788	888	1004	1040	68
15°	550	1016	1712	2076	2141	153
25°	352	1152	2040	2129	2132	162
35°	238	1101	1921	2030	2110	148
45°	162	878	1698	1945	2032	126
55°	116	558	1440	1673	1720	106
65°	92	296	1070	1203	1220	91
75°	68	182	587	645	648	71
85°	24	56	146	160	162	26
90°	4	11	29	14	14	5
95°	36	142	473	244	166	40
105°	130	197	799	1212	1131	138
115°	231	281	640	1276	1456	228
125°	322	360	582	983	1160	285
135°	383	422	564	794	900	296
145°	444	473	556	677	730	278
155°	502	516	556	611	629	231
165°	542	549	556	578	586	153
175°	564	564	560	567	567	54
180°	564	564	564	564	564	



TEST NUMBER: P936868

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3
2.5°	754.3	754.3	759.1	761.5	766.4	768.8	773.6	778.5	793.1	795.5	800.3
5°	734.8	744.5	776.1	788.2	822.2	868.2	887.6	919.2	984.6	1004.1	1016.2
7.5°	705.7	727.5	805.2	824.5	909.4	1030.7	1081.6	1149.5	1253.8	1304.8	1346.0
10°	659.6	705.7	844.0	890.1	1028.3	1212.6	1307.2	1401.8	1559.3	1629.7	1656.3
12.5°	608.7	683.9	885.2	948.3	1147.1	1416.3	1530.3	1634.6	1814.0	1908.6	1923.1
15°	550.5	652.4	924.0	1016.2	1273.2	1586.1	1712.1	1840.7	2008.0	2075.9	2092.9
17.5°	499.6	628.2	960.4	1057.4	1370.2	1738.8	1867.4	1974.1	2109.9	2155.9	2168.1
20°	436.5	589.3	984.6	1110.7	1472.1	1850.4	1974.1	2056.6	2148.7	2177.8	2182.6
22.5°	390.5	548.0	999.2	1130.1	1540.0	1918.3	2022.6	2088.0	2151.2	2160.8	2163.3
25°	351.7	502.0	996.7	1152.0	1598.2	1959.6	2039.6	2088.0	2124.5	2129.3	2129.3
27.5°	315.2	451.0	987.1	1156.8	1641.8	1969.3	2032.3	2066.3	2083.3	2092.9	2092.9
30°	283.8	402.6	962.8	1147.1	1661.2	1959.6	2010.5	2027.5	2044.4	2058.9	2066.3
32.5°	259.5	356.5	926.4	1127.7	1663.7	1935.3	1971.7	1981.4	2005.6	2039.6	2051.7
35°	237.7	310.5	885.2	1101.1	1649.1	1896.5	1920.7	1930.5	1978.9	2029.8	2046.8
37.5°	215.8	276.5	831.8	1055.0	1627.3	1850.4	1867.4	1884.4	1959.6	2020.1	2039.6
40°	194.0	247.4	768.8	1004.1	1593.3	1794.6	1809.1	1835.8	1935.3	2005.6	2025.0
42.5°	177.0	223.1	700.8	950.6	1549.7	1731.6	1753.4	1792.2	1906.1	1981.4	2003.2
45°	162.5	198.9	628.2	877.9	1493.9	1666.1	1697.6	1751.0	1872.2	1945.0	1964.4
47.5°	147.9	181.9	552.9	802.7	1433.3	1600.6	1641.8	1702.5	1826.1	1896.5	1913.5
50°	135.8	164.9	477.8	722.7	1367.8	1530.3	1578.8	1641.8	1767.9	1833.5	1855.2
52.5°	126.1	150.3	407.5	642.7	1292.6	1457.5	1513.3	1578.8	1697.6	1760.7	1775.2
55°	116.4	138.2	346.8	557.8	1215.0	1379.9	1440.5	1503.6	1620.0	1673.3	1683.1
57.5°	111.6	128.6	295.9	477.8	1132.5	1292.6	1360.5	1418.8	1527.9	1569.1	1578.8
60°	104.3	121.2	257.0	409.8	1042.9	1210.2	1268.3	1326.5	1418.8	1452.7	1460.0
62.5°	97.0	116.4	228.0	344.4	950.6	1113.2	1171.3	1224.8	1302.3	1326.5	1336.3
65°	92.1	111.6	206.1	295.9	856.1	1011.3	1069.5	1115.6	1178.6	1202.9	1207.8
67.5°	87.3	106.7	189.1	254.7	761.5	909.4	953.1	996.7	1045.3	1069.5	1072.0
70°	80.0	101.9	174.6	225.6	664.5	793.1	829.4	875.5	914.3	926.4	933.7
72.5°	75.2	94.6	164.9	203.7	565.0	681.5	715.4	742.1	776.1	788.2	788.2
75°	67.9	84.9	155.2	181.9	463.3	557.8	586.9	613.6	640.3	645.1	637.8
77.5°	60.7	75.2	133.3	152.8	361.4	441.4	465.6	480.1	502.0	506.8	509.3
80°	50.9	65.5	104.3	118.8	261.9	325.0	341.9	354.0	373.5	373.5	378.4
82.5°	38.8	50.9	75.2	84.9	177.0	223.1	237.7	244.9	257.0	257.0	257.0
85°	24.2	31.6	48.5	55.8	106.7	135.8	145.5	147.9	157.7	160.0	160.0
87.5°	12.1	17.0	31.6	34.0	55.8	70.3	70.3	75.2	75.2	72.8	70.3
90°	3.8	6.8	9.8	10.6	16.6	24.7	28.7	25.5	19.2	14.4	14.4
92.5°	15.1	40.8	66.6	73.0	102.7	142.2	161.9	141.9	101.9	71.9	69.0
95°	36.3	83.4	130.5	142.2	252.5	399.7	473.3	422.3	320.5	244.0	235.4
97.5°	62.8	104.3	145.8	156.2	340.2	585.5	708.2	676.0	611.6	563.3	546.8
100°	83.2	120.9	158.5	167.9	372.1	644.3	780.4	782.8	787.5	791.0	771.3
102.5°	100.7	135.8	170.9	179.7	386.7	662.9	800.9	841.9	923.9	985.4	968.6
105°	130.1	159.9	189.7	197.1	397.6	665.0	798.6	890.5	1074.5	1212.5	1203.4
107.5°	160.4	188.1	215.8	222.8	399.6	635.3	753.2	881.4	1138.0	1330.5	1332.7
110°	180.8	205.8	231.0	237.2	396.6	609.1	715.3	858.8	1145.6	1360.7	1370.1



TEST NUMBER: P936868

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	200.9	224.7	248.6	254.6	396.7	586.2	680.9	827.7	1121.2	1341.4	1355.9
115°	231.2	253.2	275.2	280.7	400.4	560.0	639.7	781.1	1063.9	1276.0	1296.0
117.5°	261.0	281.0	301.0	306.1	407.8	543.5	611.3	738.9	994.1	1185.6	1207.8
120°	278.4	297.2	316.1	320.8	413.9	538.0	600.0	716.5	949.7	1124.6	1146.2
122.5°	295.4	314.4	333.4	338.2	422.5	535.0	591.3	696.3	906.3	1063.8	1085.1
125°	321.6	338.8	356.2	360.5	434.3	532.6	581.8	671.0	849.4	983.2	1002.9
127.5°	342.8	360.2	377.6	382.0	446.0	531.3	573.8	650.5	803.6	918.5	935.0
130°	354.0	372.9	391.8	396.4	454.5	532.1	570.8	639.0	775.4	877.6	892.9
132.5°	365.8	384.6	403.5	408.2	461.5	532.6	568.2	629.3	751.3	842.8	856.5
135°	383.2	400.4	417.5	421.8	469.0	532.1	563.6	614.8	717.0	793.6	805.5
137.5°	401.0	418.0	435.0	439.2	480.4	535.4	562.9	606.1	692.6	757.4	767.0
140°	415.7	431.4	447.0	451.0	487.4	535.9	560.3	597.6	672.2	728.2	737.2
142.5°	427.1	441.5	456.0	459.6	493.2	537.9	560.3	593.0	658.6	707.8	715.6
145°	444.5	457.1	469.8	472.9	500.8	538.0	556.5	583.3	637.0	677.2	683.0
147.5°	461.9	474.2	486.5	489.5	511.8	541.6	556.5	577.6	619.7	651.4	656.2
150°	473.3	484.4	495.5	498.2	517.7	543.6	556.5	574.3	610.0	636.7	640.6
152.5°	485.0	493.4	501.8	503.9	521.4	544.8	556.5	571.7	602.1	625.0	628.0
155°	502.3	508.6	514.8	516.4	529.8	547.6	556.5	568.6	592.7	610.9	612.9
157.5°	515.2	521.3	527.3	528.9	538.0	550.3	556.5	565.9	584.7	598.8	600.2
160°	523.9	528.7	533.4	534.6	541.9	551.6	556.5	564.6	580.6	592.7	593.6
162.5°	532.6	536.2	539.7	540.6	545.9	553.0	556.5	563.3	577.0	587.1	587.9
165°	542.1	545.3	548.4	549.2	551.6	554.8	556.5	561.4	571.1	578.4	579.2
167.5°	550.8	552.3	553.8	554.2	556.2	558.9	560.3	563.5	569.9	574.7	575.0
170°	556.5	558.0	559.5	559.9	560.0	560.2	560.3	563.5	569.9	574.7	574.7
172.5°	559.5	559.9	560.2	560.3	560.3	560.3	560.3	562.8	567.9	571.6	571.4
175°	563.6	563.6	563.6	563.6	562.5	561.0	560.3	561.8	565.0	567.4	567.4
177.5°	563.6	563.6	563.6	563.6	562.7	561.5	561.0	562.3	564.7	566.7	566.3
180°	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6	563.6



TEST NUMBER: P936868

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	754.3	754.3
2.5°	805.2	800.3
5°	1035.5	1040.4
7.5°	1394.4	1392.1
10°	1734.0	1755.8
12.5°	1981.4	1986.3
15°	2131.7	2141.4
17.5°	2189.9	2192.4
20°	2192.4	2187.5
22.5°	2165.7	2160.8
25°	2134.2	2131.7
27.5°	2105.0	2107.5
30°	2092.9	2100.2
32.5°	2092.9	2105.0
35°	2097.8	2109.9
37.5°	2095.4	2109.9
40°	2085.6	2102.6
42.5°	2058.9	2071.1
45°	2017.7	2032.3
47.5°	1964.4	1974.1
50°	1896.5	1906.1
52.5°	1811.6	1814.0
55°	1709.8	1719.5
57.5°	1600.6	1603.0
60°	1479.3	1486.7
62.5°	1350.8	1350.8
65°	1215.0	1219.9
67.5°	1074.3	1086.5
70°	931.3	933.7
72.5°	790.6	790.6
75°	645.1	647.5
77.5°	506.8	506.8
80°	375.9	378.4
82.5°	259.5	264.4
85°	162.5	162.5
87.5°	75.2	67.9
90°	14.4	14.4
92.5°	57.5	46.2
95°	200.7	166.1
97.5°	480.9	415.0
100°	692.9	614.3
102.5°	901.4	834.1
105°	1167.2	1131.1
107.5°	1341.4	1350.1
110°	1407.7	1445.5



TEST NUMBER: P936868

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1413.7	1471.5
115°	1376.2	1456.4
117.5°	1296.8	1385.7
120°	1232.6	1319.1
122.5°	1170.3	1255.6
125°	1081.3	1159.9
127.5°	1001.3	1067.6
130°	954.1	1015.3
132.5°	911.4	966.1
135°	852.7	900.0
137.5°	805.7	844.4
140°	773.3	809.5
142.5°	746.6	777.7
145°	706.6	730.1
147.5°	675.8	695.3
150°	656.4	672.2
152.5°	639.9	651.8
155°	620.8	628.7
157.5°	605.8	611.3
160°	596.8	600.0
162.5°	590.9	593.9
165°	582.4	585.6
167.5°	576.3	577.7
170°	574.7	574.7
172.5°	570.2	569.0
175°	567.4	567.4
177.5°	565.0	563.6
180°	563.6	563.6



TEST NUMBER: P936868

CATALOG NUMBER: SQ4-FB-050U-100D-93050-1D-UNV-STD-W-8-5000K

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	6.34	7.37	7.18	8.24	9.33	19.52	20.54	20.36	21.42	22.51
	3H	7.06	7.98	7.91	8.86	9.98	21.37	22.29	22.23	23.17	24.29
	4H	7.36	8.24	8.24	9.13	10.26	22.02	22.90	22.89	23.78	24.91
	6H	7.62	8.43	8.51	9.33	10.47	22.46	23.27	23.35	24.16	25.31
	8H	7.70	8.47	8.59	9.38	10.52	22.59	23.36	23.48	24.27	25.41
	12H	7.72	8.45	8.62	9.36	10.53	22.66	23.40	23.56	24.30	25.47
4H	2H	13.58	14.45	14.45	15.34	16.47	19.81	20.69	20.69	21.57	22.70
	3H	15.16	15.89	16.05	16.81	17.96	21.87	22.61	22.76	23.53	24.67
	4H	15.26	15.93	16.16	16.84	18.02	22.65	23.32	23.55	24.23	25.40
	6H	15.28	15.86	16.20	16.80	17.97	23.20	23.78	24.11	24.72	25.89
	8H	15.26	15.80	16.18	16.74	17.92	23.36	23.91	24.28	24.84	26.03
	12H	15.23	15.72	16.16	16.67	17.86	23.47	23.96	24.40	24.91	26.10
8H	4H	16.72	17.26	17.64	18.19	19.38	22.72	23.26	23.64	24.20	25.39
	6H	16.97	17.42	17.91	18.39	19.58	23.36	23.81	24.30	24.78	25.97
	8H	16.99	17.39	17.94	18.35	19.56	23.58	23.98	24.54	24.95	26.15
	12H	16.97	17.32	17.92	18.28	19.53	23.73	24.09	24.69	25.04	26.30
12H	4H	16.87	17.36	17.81	18.31	19.51	22.68	23.17	23.62	24.12	25.32
	6H	17.23	17.63	18.18	18.59	19.80	23.34	23.74	24.30	24.71	25.91
	8H	17.31	17.66	18.27	18.62	19.87	23.58	23.93	24.54	24.89	26.15