

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: P936830

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

**Test Information**

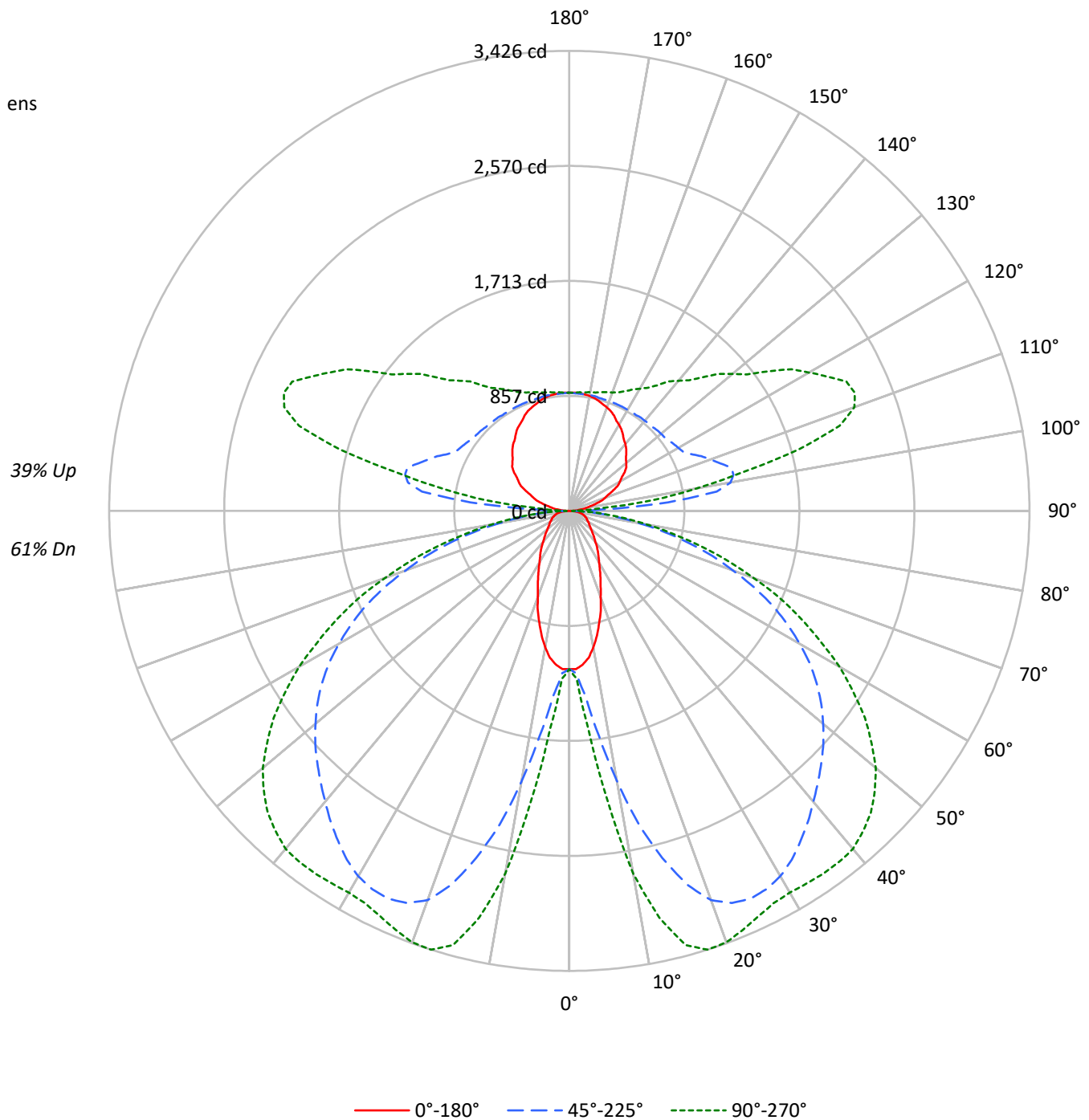
Test Method: LM-79-2019  
Report Number: P936830  
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14832.4 lumens  
Efficiency: N/A  
Efficacy: 109.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 135.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3646	3646	3646
5°	3563	4215	4900
10°	3233	6145	8124
15°	2749	8031	9810
20°	2238	9309	9998
25°	1868	9743	9795
30°	1576	9808	9776
35°	1394	9647	10029
40°	1216	9438	10290
45°	1102	9286	10330
50°	1012	9150	10159
55°	970	8949	9709
60°	993	8560	8998
65°	1035	7966	8021
70°	1106	6952	6776
75°	1230	5674	5288
80°	1354	3940	3563
85°	1228	2094	1824

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10330 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.5	1.0
10°-20°	675.7	4.6
20°-30°	1182.0	8.0
30°-40°	1521.5	10.3
40°-50°	1699.5	11.5
50°-60°	1627.7	11.0
60°-70°	1290.0	8.7
70°-80°	758.6	5.1
80°-90°	214.1	1.4
90°-100°	429.4	2.9
100°-110°	1129.0	7.6
110°-120°	1170.6	7.9
120°-130°	939.0	6.3
130°-140°	736.8	5.0
140°-150°	565.5	3.8
150°-160°	407.3	2.7
160°-170°	249.2	1.7
170°-180°	84.2	0.6
0°-30°	2010.2	13.6
0°-40°	3531.7	23.8
0°-60°	6859.0	46.2
0°-90°	9121.6	61.5
90°-120°	2729.0	18.4
90°-150°	4970.2	33.5
90°-180°	5711.0	38.5
0°-180°	14832.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1179	1179	1179	1179	1179	
5°	1148	1232	1387	1569	1626	106
15°	860	1588	2676	3244	3347	239
25°	550	1800	3187	3328	3331	253
35°	371	1721	3002	3172	3297	232
45°	254	1372	2653	3040	3176	196
55°	182	872	2251	2615	2687	166
65°	144	462	1671	1880	1906	143
75°	106	284	917	1008	1012	111
85°	38	87	227	250	254	40
90°	6	16	45	22	22	7
95°	57	222	740	381	260	63
105°	203	308	1248	1895	1768	216
115°	361	439	1000	1994	2276	357
125°	503	564	909	1537	1813	446
135°	599	659	881	1240	1407	463
145°	695	739	870	1058	1141	435
155°	785	807	870	955	983	361
165°	847	858	870	904	915	239
175°	881	881	876	887	887	84
180°	881	881	881	881	881	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7
2.5°	1178.7	1178.7	1186.3	1190.1	1197.6	1201.5	1209.0	1216.6	1239.3	1243.1	1250.7
5°	1148.4	1163.5	1212.8	1231.8	1284.8	1356.8	1387.1	1436.4	1538.7	1569.0	1587.9
7.5°	1102.9	1137.0	1258.3	1288.6	1421.2	1610.7	1690.4	1796.4	1959.4	2039.0	2103.4
10°	1030.9	1102.9	1318.9	1390.9	1607.0	1895.0	2042.8	2190.6	2437.0	2546.8	2588.5
12.5°	951.3	1068.7	1383.3	1481.9	1792.7	2213.3	2391.4	2554.5	2834.9	2982.7	3005.4
15°	860.3	1019.5	1443.9	1587.9	1989.7	2478.6	2675.7	2876.6	3138.1	3244.2	3270.8
17.5°	780.7	981.6	1500.8	1652.4	2141.3	2717.4	2918.3	3085.1	3297.2	3369.2	3388.3
20°	682.1	921.0	1538.7	1735.8	2300.5	2891.7	3085.1	3213.9	3357.9	3403.4	3410.9
22.5°	610.1	856.6	1561.5	1766.1	2406.6	2997.9	3160.8	3263.2	3361.7	3376.9	3380.6
25°	549.5	784.6	1557.6	1800.2	2497.6	3062.3	3187.4	3263.2	3320.0	3327.6	3327.6
27.5°	492.7	704.9	1542.5	1807.8	2565.8	3077.4	3176.0	3229.1	3255.6	3270.8	3270.8
30°	443.4	629.2	1504.6	1792.7	2596.2	3062.3	3141.9	3168.4	3194.9	3217.7	3229.1
32.5°	405.5	557.1	1447.8	1762.4	2599.9	3024.4	3081.2	3096.4	3134.3	3187.4	3206.3
35°	371.4	485.1	1383.3	1720.7	2577.1	2963.7	3001.7	3016.8	3092.6	3172.2	3198.8
37.5°	337.3	432.1	1299.9	1648.7	2543.1	2891.7	2918.3	2944.8	3062.3	3157.1	3187.4
40°	303.2	386.6	1201.5	1569.0	2490.0	2804.6	2827.3	2869.0	3024.4	3134.3	3164.6
42.5°	276.6	348.7	1095.3	1485.6	2421.8	2706.0	2740.2	2800.8	2978.9	3096.4	3130.5
45°	254.0	310.8	981.6	1371.9	2334.6	2603.7	2653.0	2736.3	2925.9	3039.5	3069.9
47.5°	231.2	284.3	864.1	1254.5	2239.9	2501.4	2565.8	2660.5	2853.9	2963.7	2990.3
50°	212.3	257.7	746.6	1129.5	2137.6	2391.4	2467.3	2565.8	2762.9	2865.2	2899.4
52.5°	197.1	234.9	636.7	1004.4	2020.1	2277.7	2365.0	2467.3	2653.0	2751.5	2774.3
55°	182.0	216.0	542.0	871.7	1898.8	2156.5	2251.3	2349.7	2531.7	2615.1	2630.2
57.5°	174.3	200.9	462.4	746.6	1769.9	2020.1	2126.2	2217.1	2387.7	2452.1	2467.3
60°	162.9	189.5	401.7	640.5	1629.6	1891.2	1982.2	2073.1	2217.1	2270.2	2281.6
62.5°	151.6	182.0	356.3	538.1	1485.6	1739.6	1830.5	1913.9	2035.3	2073.1	2088.2
65°	144.0	174.3	322.1	462.4	1337.9	1580.4	1671.3	1743.4	1841.9	1879.8	1887.4
67.5°	136.4	166.8	295.7	398.0	1190.1	1421.2	1489.5	1557.6	1633.5	1671.3	1675.2
70°	125.1	159.2	272.9	352.5	1038.4	1239.3	1296.2	1368.2	1428.8	1447.8	1459.2
72.5°	117.5	147.8	257.7	318.3	883.0	1065.0	1118.1	1159.8	1212.8	1231.8	1231.8
75°	106.1	132.6	242.6	284.3	723.8	871.7	917.2	958.9	1000.6	1008.1	996.7
77.5°	94.8	117.5	208.5	238.8	564.7	689.8	727.7	750.4	784.6	792.1	795.9
80°	79.6	102.3	162.9	185.7	409.3	507.8	534.4	553.3	583.7	583.7	591.2
82.5°	60.6	79.6	117.5	132.6	276.6	348.7	371.4	382.8	401.7	401.7	401.7
85°	37.9	49.2	75.8	87.2	166.8	212.3	227.4	231.2	246.3	250.1	250.1
87.5°	18.9	26.5	49.2	53.1	87.2	109.9	109.9	117.5	117.5	113.7	109.9
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	40.0	29.9	22.5	22.5
92.5°	23.6	63.8	104.0	114.1	160.4	222.1	253.0	221.7	159.2	112.4	107.9
95°	56.8	130.3	204.0	222.3	394.7	624.7	739.6	660.0	500.8	381.3	367.8
97.5°	98.1	163.0	228.0	244.2	531.7	915.1	1106.8	1056.5	955.8	880.4	854.6
100°	130.0	188.9	247.7	262.5	581.6	1007.0	1219.7	1223.4	1230.7	1236.3	1205.6
102.5°	157.3	212.2	267.1	280.8	604.4	1035.9	1251.7	1315.7	1443.9	1540.1	1513.8
105°	203.4	249.9	296.3	308.0	621.3	1039.2	1248.1	1391.8	1679.3	1894.9	1880.7
107.5°	250.7	294.0	337.4	348.2	624.6	993.0	1177.2	1377.7	1778.7	2079.4	2082.9
110°	282.7	321.8	361.0	370.7	619.8	952.0	1118.1	1342.2	1790.5	2126.7	2141.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.9	351.2	388.5	397.9	620.0	916.1	1064.2	1293.6	1752.4	2096.5	2119.1
115°	361.2	395.7	430.1	438.7	625.7	875.1	999.8	1220.8	1662.7	1994.2	2025.6
117.5°	407.9	439.2	470.4	478.3	637.3	849.4	955.4	1154.9	1553.7	1852.9	1887.6
120°	435.2	464.6	494.0	501.3	646.8	840.8	937.7	1120.0	1484.4	1757.8	1791.5
122.5°	461.7	491.5	521.1	528.6	660.4	836.2	924.1	1088.1	1416.4	1662.5	1695.8
125°	502.6	529.6	556.7	563.5	678.8	832.5	909.3	1048.8	1327.5	1536.6	1567.3
127.5°	535.7	563.0	590.4	597.1	697.1	830.3	896.9	1016.6	1256.0	1435.5	1461.4
130°	553.4	582.9	612.3	619.6	710.5	831.6	892.2	998.7	1211.9	1371.7	1395.6
132.5°	571.7	601.2	630.6	638.0	721.4	832.5	888.0	983.4	1174.2	1317.3	1338.7
135°	599.0	625.7	652.5	659.2	733.1	831.7	880.9	960.9	1120.7	1240.5	1258.9
137.5°	626.7	653.3	679.9	686.5	750.9	836.9	879.8	947.3	1082.4	1183.7	1198.8
140°	649.7	674.2	698.6	704.7	761.7	837.6	875.6	933.9	1050.7	1138.2	1152.3
142.5°	667.5	690.1	712.7	718.4	770.8	840.7	875.6	926.8	1029.3	1106.2	1118.4
145°	694.7	714.4	734.1	739.0	782.6	840.7	869.8	911.6	995.5	1058.3	1067.5
147.5°	721.9	741.0	760.3	765.1	800.0	846.5	869.8	902.7	968.7	1018.2	1025.8
150°	739.6	756.9	774.3	778.6	809.0	849.5	869.8	897.6	953.2	995.0	1001.2
152.5°	758.0	771.1	784.3	787.5	815.0	851.5	869.8	893.6	941.1	976.8	981.4
155°	785.1	794.9	804.6	807.0	828.0	855.8	869.8	888.7	926.5	954.9	957.9
157.5°	805.3	814.8	824.1	826.5	841.0	860.2	869.8	884.5	913.8	935.9	938.1
160°	818.9	826.2	833.6	835.4	846.9	862.1	869.8	882.4	907.5	926.5	927.7
162.5°	832.5	838.0	843.6	844.9	853.2	864.2	869.8	880.4	901.6	917.6	918.7
165°	847.3	852.3	857.2	858.5	862.2	867.3	869.8	877.4	892.6	904.0	905.2
167.5°	860.9	863.2	865.5	866.1	869.3	873.5	875.6	880.6	890.6	898.1	898.6
170°	869.8	872.0	874.4	875.0	875.2	875.5	875.6	880.6	890.6	898.1	898.1
172.5°	874.4	874.9	875.5	875.6	875.6	875.6	875.6	879.5	887.4	893.4	892.9
175°	880.9	880.9	880.9	880.9	879.1	876.7	875.6	878.1	883.1	886.9	886.9
177.5°	880.9	880.9	880.9	880.9	879.6	877.8	876.8	878.8	882.8	885.7	885.1
180°	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1178.7	1178.7
2.5°	1258.3	1250.7
5°	1618.4	1625.9
7.5°	2179.3	2175.4
10°	2709.9	2743.9
12.5°	3096.4	3104.0
15°	3331.4	3346.6
17.5°	3422.3	3426.1
20°	3426.1	3418.6
22.5°	3384.4	3376.9
25°	3335.2	3331.4
27.5°	3289.7	3293.5
30°	3270.8	3282.1
32.5°	3270.8	3289.7
35°	3278.3	3297.2
37.5°	3274.5	3297.2
40°	3259.4	3285.9
42.5°	3217.7	3236.6
45°	3153.2	3176.0
47.5°	3069.9	3085.1
50°	2963.7	2978.9
52.5°	2831.1	2834.9
55°	2671.9	2687.1
57.5°	2501.4	2505.1
60°	2311.9	2323.3
62.5°	2111.0	2111.0
65°	1898.8	1906.4
67.5°	1679.0	1697.9
70°	1455.3	1459.2
72.5°	1235.5	1235.5
75°	1008.1	1011.9
77.5°	792.1	792.1
80°	587.5	591.2
82.5°	405.5	413.1
85°	254.0	254.0
87.5°	117.5	106.1
90°	22.5	22.5
92.5°	90.0	72.1
95°	313.6	259.5
97.5°	751.6	648.6
100°	1082.9	960.2
102.5°	1408.8	1303.7
105°	1824.3	1767.8
107.5°	2096.5	2110.1
110°	2200.2	2259.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2209.6	2299.9
115°	2151.0	2276.3
117.5°	2026.7	2165.7
120°	1926.6	2061.6
122.5°	1829.1	1962.3
125°	1690.0	1812.8
127.5°	1564.9	1668.5
130°	1491.3	1586.9
132.5°	1424.3	1510.0
135°	1332.7	1406.6
137.5°	1259.2	1319.6
140°	1208.7	1265.2
142.5°	1167.0	1215.6
145°	1104.3	1141.1
147.5°	1056.2	1086.7
150°	1025.9	1050.7
152.5°	1000.1	1018.7
155°	970.3	982.7
157.5°	946.7	955.4
160°	932.8	937.7
162.5°	923.5	928.3
165°	910.3	915.3
167.5°	900.7	902.8
170°	898.1	898.1
172.5°	891.1	889.3
175°	886.9	886.9
177.5°	883.0	880.9
180°	880.9	880.9



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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	6.49	7.51	7.33	8.39	9.48	19.68	20.70	20.52	21.58	22.67
	3H	7.21	8.13	8.06	9.01	10.13	21.54	22.46	22.39	23.34	24.46
	4H	7.51	8.38	8.38	9.27	10.40	22.19	23.07	23.06	23.95	25.08
	6H	7.77	8.58	8.65	9.47	10.62	22.64	23.44	23.52	24.34	25.48
	8H	7.84	8.61	8.73	9.53	10.67	22.76	23.53	23.66	24.45	25.59
	12H	7.87	8.60	8.76	9.51	10.68	22.84	23.57	23.74	24.48	25.65
4H	2H	13.73	14.60	14.61	15.49	16.62	19.97	20.85	20.85	21.73	22.86
	3H	15.31	16.05	16.20	16.96	18.11	22.04	22.77	22.93	23.69	24.84
	4H	15.41	16.08	16.31	17.00	18.17	22.82	23.49	23.72	24.40	25.57
	6H	15.43	16.01	16.35	16.95	18.13	23.37	23.95	24.28	24.89	26.06
	8H	15.42	15.96	16.33	16.89	18.08	23.54	24.08	24.46	25.01	26.20
	12H	15.38	15.87	16.32	16.82	18.01	23.64	24.13	24.58	25.09	26.28
8H	4H	16.88	17.42	17.79	18.35	19.54	22.89	23.43	23.81	24.37	25.55
	6H	17.13	17.58	18.07	18.55	19.74	23.53	23.98	24.48	24.96	26.14
	8H	17.15	17.55	18.10	18.51	19.71	23.76	24.16	24.71	25.12	26.32
	12H	17.12	17.47	18.08	18.43	19.69	23.91	24.26	24.87	25.22	26.48
12H	4H	17.03	17.52	17.97	18.47	19.66	22.85	23.34	23.79	24.29	25.49
	6H	17.39	17.79	18.34	18.75	19.96	23.52	23.92	24.47	24.88	26.09
	8H	17.47	17.82	18.43	18.78	20.03	23.76	24.11	24.72	25.07	26.32