

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: P937447

Luminaire Tested: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937447  
REPORT IS A COMBINATION OF REPORTS P933581 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-92765-1D-UNV-STD-W-8-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

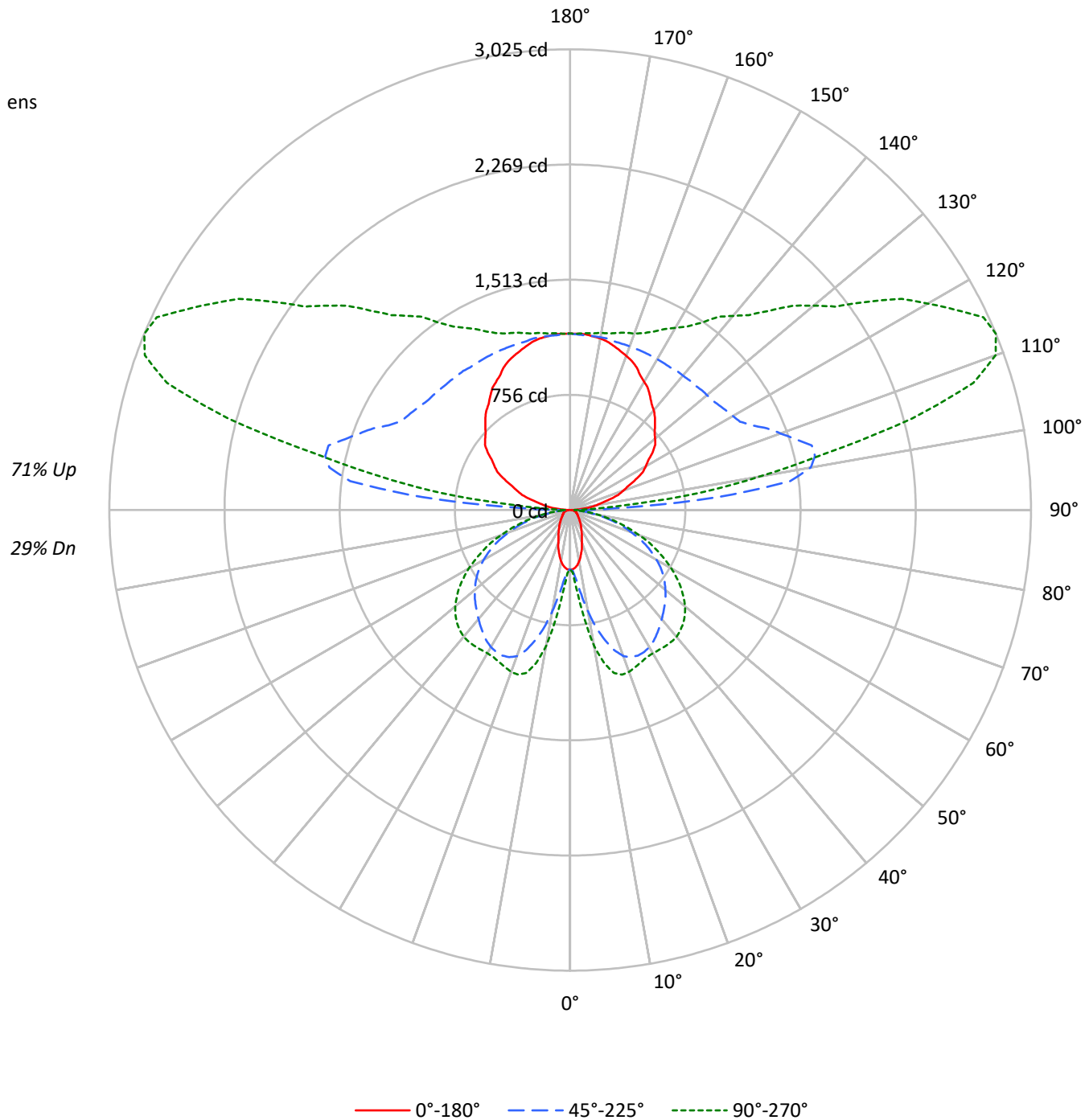
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10531.4 lumens  
Efficiency: N/A  
Efficacy: 127.8 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): 82.4  
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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CATALOG NUMBER: SQ4-FB-100U-050D-92765-1D-UNV-STD-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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6

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

	0°	45°	90°
0°	1809	1809	1809
5°	1767	2091	2431
10°	1603	3048	4031
15°	1362	3982	4868
20°	1109	4614	4961
25°	925	4828	4860
30°	780	4859	4851
35°	689	4778	4976
40°	601	4674	5106
45°	544	4597	5126
50°	499	4528	5042
55°	478	4427	4818
60°	490	4232	4465
65°	510	3937	3980
70°	543	3433	3362
75°	601	2799	2624
80°	659	1942	1767
85°	582	1030	905

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5126 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.4	0.5
10°-20°	223.5	2.1
20°-30°	391.0	3.7
30°-40°	503.3	4.8
40°-50°	562.2	5.3
50°-60°	538.5	5.1
60°-70°	426.7	4.1
70°-80°	250.9	2.4
80°-90°	74.1	0.7
90°-100°	564.8	5.4
100°-110°	1484.7	14.1
110°-120°	1539.5	14.6
120°-130°	1234.9	11.7
130°-140°	968.9	9.2
140°-150°	743.7	7.1
150°-160°	535.6	5.1
160°-170°	327.7	3.1
170°-180°	110.7	1.1
0°-30°	665.0	6.3
0°-40°	1168.3	11.1
0°-60°	2268.9	21.5
0°-90°	3020.7	28.7
90°-120°	3589.0	34.1
90°-150°	6536.6	62.1
90°-180°	7511.0	71.3
0°-180°	10531.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	380	407	459	519	538	35
15°	285	525	885	1073	1107	79
25°	182	596	1054	1101	1102	84
35°	123	569	993	1049	1091	77
45°	84	454	878	1006	1051	65
55°	60	288	745	865	889	55
65°	48	153	553	622	631	47
75°	35	94	303	334	335	37
85°	12	29	75	83	84	13
90°	8	22	59	30	30	7
95°	75	292	973	502	341	83
105°	268	405	1641	2492	2325	284
115°	475	577	1315	2623	2994	469
125°	661	741	1196	2021	2384	587
135°	788	867	1159	1631	1850	609
145°	914	972	1144	1392	1501	572
155°	1033	1061	1144	1256	1292	474
165°	1114	1129	1144	1189	1204	314
175°	1159	1159	1152	1166	1166	110
180°	1159	1159	1159	1159	1159	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9
2.5°	389.9	389.9	392.4	393.7	396.1	397.4	400.0	402.5	410.0	411.2	413.7
5°	379.9	384.9	401.2	407.4	425.0	448.8	458.8	475.1	509.0	519.0	525.3
7.5°	364.8	376.1	416.2	426.2	470.2	532.8	559.1	594.3	648.1	674.5	695.8
10°	341.0	364.8	436.3	460.2	531.6	626.8	675.8	724.7	806.1	842.5	856.3
12.5°	314.7	353.5	457.6	490.2	593.0	732.2	791.1	845.0	937.8	986.7	994.2
15°	284.6	337.2	477.6	525.3	658.2	819.9	885.2	951.5	1038.1	1073.1	1081.9
17.5°	258.3	324.7	496.5	546.6	708.3	898.9	965.4	1020.5	1090.7	1114.5	1120.8
20°	225.6	304.6	509.0	574.2	761.0	956.6	1020.5	1063.1	1110.8	1125.9	1128.4
22.5°	201.8	283.3	516.5	584.2	796.1	991.7	1045.6	1079.5	1112.0	1117.1	1118.3
25°	181.8	259.5	515.3	595.5	826.2	1013.0	1054.3	1079.5	1098.3	1100.8	1100.8
27.5°	163.0	233.2	510.3	598.0	848.8	1018.0	1050.6	1068.2	1077.0	1081.9	1081.9
30°	146.7	208.2	497.7	593.0	858.8	1013.0	1039.3	1048.1	1056.9	1064.4	1068.2
32.5°	134.1	184.3	478.9	583.0	860.0	1000.4	1019.3	1024.3	1036.8	1054.3	1060.6
35°	122.8	160.5	457.6	569.1	852.5	980.4	992.9	998.0	1023.0	1049.4	1058.1
37.5°	111.6	142.9	430.1	545.4	841.2	956.6	965.4	974.2	1013.0	1044.3	1054.3
40°	100.3	127.9	397.4	519.0	823.7	927.8	935.3	949.1	1000.4	1036.8	1046.9
42.5°	91.5	115.3	362.3	491.5	801.1	895.2	906.5	926.5	985.5	1024.3	1035.6
45°	84.0	102.8	324.7	453.8	772.3	861.3	877.6	905.2	967.9	1005.5	1015.5
47.5°	76.5	94.0	285.8	415.0	740.9	827.5	848.8	880.1	944.1	980.4	989.2
50°	70.2	85.2	246.9	373.6	707.1	791.1	816.2	848.8	914.0	947.8	959.1
52.5°	65.1	77.8	210.6	332.2	668.2	753.5	782.3	816.2	877.6	910.2	917.7
55°	60.2	71.5	179.3	288.4	628.1	713.4	744.7	777.3	837.5	865.1	870.1
57.5°	57.7	66.5	152.9	246.9	585.5	668.2	703.4	733.5	789.8	811.1	816.2
60°	53.9	62.7	132.9	211.9	539.1	625.6	655.7	685.8	733.5	750.9	754.8
62.5°	50.2	60.2	117.9	178.1	491.5	575.5	605.5	633.2	673.3	685.8	690.8
65°	47.7	57.7	106.6	152.9	442.6	522.8	552.9	576.7	609.3	621.9	624.4
67.5°	45.1	55.1	97.8	131.6	393.7	470.2	492.7	515.3	540.4	552.9	554.1
70°	41.4	52.6	90.3	116.6	343.5	410.0	428.7	452.6	472.7	478.9	482.7
72.5°	38.9	48.9	85.2	105.3	292.1	352.3	369.9	383.6	401.2	407.4	407.4
75°	35.1	43.8	80.2	94.0	239.5	288.4	303.4	317.1	331.0	333.5	329.8
77.5°	31.3	38.9	69.0	79.0	186.8	228.2	240.7	248.3	259.5	262.0	263.3
80°	26.4	33.8	53.9	61.4	135.4	168.0	176.8	183.0	193.1	193.1	195.5
82.5°	20.1	26.4	38.9	43.8	91.5	115.3	122.8	126.7	132.9	132.9	132.9
85°	12.5	16.3	25.1	28.8	55.1	70.2	75.2	76.5	81.5	82.7	82.7
87.5°	6.3	8.8	16.3	17.6	28.8	36.4	36.4	38.9	38.9	37.6	36.4
90°	7.8	14.0	20.2	21.8	34.2	50.8	59.1	52.5	39.4	29.5	29.5
92.5°	31.1	84.0	136.9	150.1	211.0	292.2	332.8	291.6	209.5	147.8	141.9
95°	74.7	171.4	268.2	292.4	519.1	821.5	972.7	868.1	658.6	501.6	483.8
97.5°	129.1	214.4	299.9	321.2	699.3	1203.5	1455.6	1389.4	1257.1	1157.8	1124.0
100°	171.1	248.4	325.9	345.3	764.9	1324.4	1604.1	1609.0	1618.6	1625.9	1585.5
102.5°	206.9	279.0	351.3	369.3	794.9	1362.3	1646.1	1730.4	1899.1	2025.6	1991.0
105°	267.5	328.6	389.8	405.1	817.2	1366.7	1641.4	1830.4	2208.5	2492.1	2473.5
107.5°	329.7	386.7	443.7	458.0	821.4	1305.9	1548.2	1811.8	2339.2	2734.7	2739.2
110°	371.6	423.1	474.6	487.5	815.2	1251.9	1470.4	1765.2	2354.7	2796.9	2816.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	412.9	461.9	511.1	523.3	815.4	1204.9	1399.6	1701.4	2304.7	2757.3	2787.0
115°	475.1	520.4	565.7	577.0	822.9	1150.9	1314.9	1605.5	2186.8	2622.8	2664.0
117.5°	536.5	577.6	618.8	629.1	838.2	1117.1	1256.5	1518.8	2043.5	2436.9	2482.6
120°	572.3	611.0	649.7	659.3	850.7	1105.8	1233.3	1472.9	1952.2	2311.7	2356.1
122.5°	607.3	646.3	685.4	695.1	868.5	1099.7	1215.3	1431.1	1862.8	2186.6	2230.4
125°	660.9	696.5	732.2	741.0	892.6	1094.8	1195.9	1379.3	1745.9	2020.9	2061.3
127.5°	704.5	740.4	776.4	785.3	916.8	1092.0	1179.6	1337.0	1651.8	1887.9	1921.9
130°	727.8	766.5	805.2	814.9	934.3	1093.7	1173.3	1313.4	1593.8	1804.0	1835.4
132.5°	751.9	790.6	829.3	839.0	948.6	1094.8	1167.9	1293.4	1544.2	1732.4	1760.5
135°	787.7	822.9	858.2	867.0	964.2	1093.8	1158.6	1263.6	1473.8	1631.3	1655.6
137.5°	824.2	859.1	894.0	902.7	987.5	1100.5	1157.0	1245.8	1423.5	1556.7	1576.6
140°	854.5	886.7	918.8	926.9	1001.7	1101.6	1151.6	1228.3	1381.8	1496.8	1515.4
142.5°	877.9	907.6	937.3	944.7	1013.7	1105.6	1151.6	1219.0	1353.7	1454.9	1470.9
145°	913.7	939.6	965.6	972.0	1029.3	1105.7	1143.8	1198.9	1309.1	1391.9	1403.9
147.5°	949.4	974.6	999.9	1006.2	1052.1	1113.2	1143.8	1187.2	1273.9	1339.0	1349.0
150°	972.7	995.6	1018.4	1024.1	1064.0	1117.2	1143.8	1180.4	1253.7	1308.7	1316.8
152.5°	996.9	1014.2	1031.4	1035.7	1071.7	1119.8	1143.8	1175.1	1237.6	1284.6	1290.7
155°	1032.6	1045.4	1058.2	1061.4	1088.8	1125.5	1143.8	1168.7	1218.5	1255.8	1259.8
157.5°	1059.0	1071.5	1084.0	1087.1	1105.9	1131.2	1143.8	1163.1	1201.8	1230.9	1233.7
160°	1077.0	1086.7	1096.3	1098.7	1113.8	1133.8	1143.8	1160.4	1193.6	1218.5	1220.2
162.5°	1094.8	1102.1	1109.4	1111.2	1122.0	1136.5	1143.8	1157.8	1185.8	1206.8	1208.4
165°	1114.3	1120.8	1127.3	1129.0	1134.0	1140.5	1143.8	1153.8	1173.9	1188.9	1190.6
167.5°	1132.1	1135.2	1138.4	1139.1	1143.2	1148.8	1151.6	1158.1	1171.3	1181.1	1181.7
170°	1143.8	1146.9	1150.1	1150.8	1151.1	1151.4	1151.6	1158.1	1171.3	1181.1	1181.1
172.5°	1150.1	1150.7	1151.4	1151.6	1151.6	1151.6	1151.6	1156.8	1167.2	1174.9	1174.4
175°	1158.6	1158.6	1158.6	1158.6	1156.2	1153.1	1151.6	1154.8	1161.4	1166.3	1166.3
177.5°	1158.6	1158.6	1158.6	1158.6	1156.8	1154.4	1153.1	1155.8	1160.9	1164.8	1164.2
180°	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	389.9	389.9
2.5°	416.2	413.7
5°	535.3	537.8
7.5°	720.8	719.6
10°	896.4	907.7
12.5°	1024.3	1026.8
15°	1102.0	1107.1
17.5°	1132.1	1133.3
20°	1133.3	1130.8
22.5°	1119.6	1117.1
25°	1103.2	1102.0
27.5°	1088.2	1089.5
30°	1081.9	1085.8
32.5°	1081.9	1088.2
35°	1084.4	1090.7
37.5°	1083.2	1090.7
40°	1078.2	1087.0
42.5°	1064.4	1070.7
45°	1043.1	1050.6
47.5°	1015.5	1020.5
50°	980.4	985.5
52.5°	936.5	937.8
55°	883.9	888.9
57.5°	827.5	828.7
60°	764.8	768.5
62.5°	698.3	698.3
65°	628.1	630.6
67.5°	555.4	561.7
70°	481.5	482.7
72.5°	408.7	408.7
75°	333.5	334.7
77.5°	262.0	262.0
80°	194.3	195.5
82.5°	134.1	136.7
85°	84.0	84.0
87.5°	38.9	35.1
90°	29.5	29.5
92.5°	118.4	94.9
95°	412.6	341.4
97.5°	988.5	853.0
100°	1424.2	1262.8
102.5°	1852.8	1714.5
105°	2399.2	2324.9
107.5°	2757.2	2775.1
110°	2893.7	2971.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2905.8	3024.7
115°	2828.8	2993.7
117.5°	2665.4	2848.2
120°	2533.8	2711.4
122.5°	2405.6	2580.7
125°	2222.6	2384.1
127.5°	2058.1	2194.3
130°	1961.2	2087.0
132.5°	1873.2	1985.9
135°	1752.8	1849.9
137.5°	1656.0	1735.6
140°	1589.7	1664.0
142.5°	1534.8	1598.7
145°	1452.3	1500.7
147.5°	1389.1	1429.2
150°	1349.2	1381.8
152.5°	1315.2	1339.7
155°	1276.1	1292.3
157.5°	1245.1	1256.5
160°	1226.7	1233.3
162.5°	1214.6	1220.8
165°	1197.2	1203.7
167.5°	1184.6	1187.4
170°	1181.1	1181.1
172.5°	1171.9	1169.5
175°	1166.3	1166.3
177.5°	1161.4	1158.6
180°	1158.6	1158.6



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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	0.69	1.41	1.81	2.52	4.06	13.87	14.59	14.99	15.70	17.24
	3H	1.38	2.03	2.51	3.15	4.71	15.70	16.34	16.82	17.46	19.02
	4H	1.67	2.29	2.81	3.41	4.97	16.34	16.95	17.47	18.07	19.64
	6H	1.92	2.48	3.06	3.60	5.18	16.76	17.32	17.90	18.45	20.02
	8H	1.98	2.52	3.13	3.66	5.23	16.88	17.41	18.02	18.55	20.12
	12H	1.99	2.50	3.14	3.64	5.23	16.94	17.45	18.09	18.58	20.18
4H	2H	7.89	8.50	9.03	9.62	11.19	14.13	14.74	15.27	15.86	17.43
	3H	9.44	9.95	10.59	11.10	12.68	16.16	16.67	17.31	17.82	19.40
	4H	9.53	10.00	10.68	11.14	12.74	16.92	17.39	18.07	18.53	20.12
	6H	9.53	9.94	10.69	11.10	12.68	17.45	17.85	18.61	19.01	20.60
	8H	9.51	9.88	10.66	11.03	12.64	17.61	17.98	18.76	19.14	20.74
	12H	9.45	9.80	10.63	10.96	12.57	17.69	18.04	18.87	19.20	20.81
8H	4H	10.96	11.34	12.12	12.49	14.10	16.97	17.34	18.12	18.50	20.10
	6H	11.20	11.51	12.37	12.70	14.30	17.59	17.90	18.77	19.09	20.70
	8H	11.21	11.49	12.40	12.66	14.28	17.81	18.08	18.99	19.25	20.87
	12H	11.18	11.41	12.36	12.58	14.24	17.94	18.18	19.13	19.35	21.01
12H	4H	11.10	11.44	12.27	12.60	14.21	16.91	17.25	18.08	18.42	20.03
	6H	11.46	11.73	12.64	12.90	14.52	17.57	17.84	18.75	19.01	20.64
	8H	11.52	11.76	12.70	12.93	14.58	17.79	18.03	18.98	19.20	20.86