

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: P937576

Luminaire Tested: SQ4-FB-100U-075D-940-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937576
REPORT IS A COMBINATION OF REPORTS P933582 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

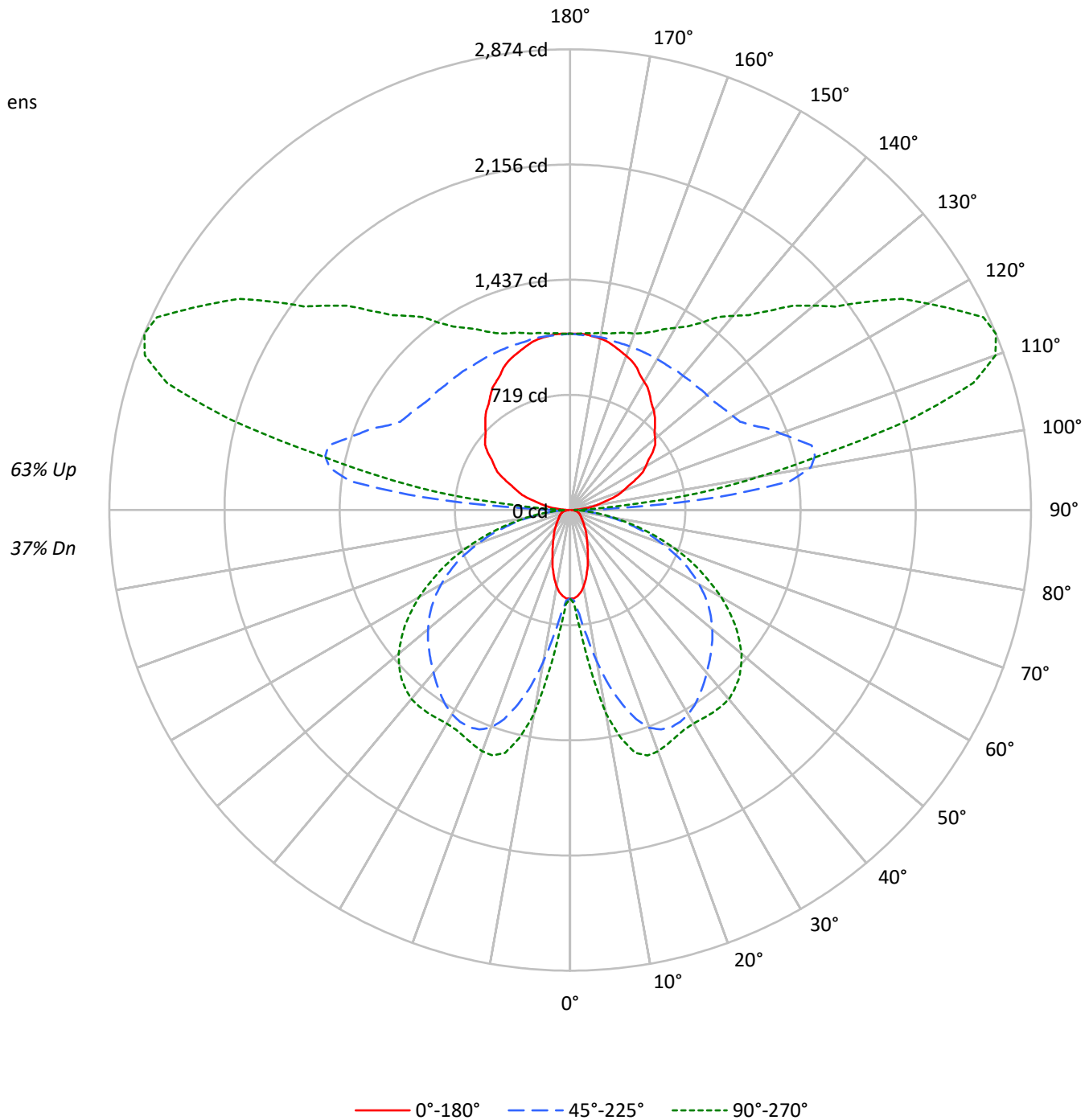
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11412.6 lumens
Efficiency: N/A
Efficacy: 116.0 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-Indirect

Input Watts (W): 98.4
Input Voltage (V): NR
Input Current (A_{in}): 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	50	30	10	0
RCR																					
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2562	2562	2562
5°	2503	2962	3445
10°	2271	4318	5711
15°	1930	5641	6896
20°	1571	6537	7028
25°	1311	6841	6885
30°	1105	6884	6872
35°	977	6770	7050
40°	852	6621	7234
45°	771	6512	7262
50°	708	6415	7141
55°	677	6271	6825
60°	694	5995	6325
65°	722	5577	5638
70°	769	4863	4763
75°	851	3965	3717
80°	931	2750	2505
85°	829	1460	1282

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7262 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	0.6
10°-20°	316.7	2.8
20°-30°	553.9	4.9
30°-40°	713.0	6.2
40°-50°	796.4	7.0
50°-60°	762.8	6.7
60°-70°	604.5	5.3
70°-80°	355.5	3.1
80°-90°	103.0	0.9
90°-100°	536.6	4.7
100°-110°	1410.6	12.4
110°-120°	1462.6	12.8
120°-130°	1173.2	10.3
130°-140°	920.5	8.1
140°-150°	706.5	6.2
150°-160°	508.8	4.5
160°-170°	311.3	2.7
170°-180°	105.2	0.9
0°-30°	942.0	8.3
0°-40°	1655.1	14.5
0°-60°	3214.3	28.2
0°-90°	4277.3	37.5
90°-120°	3409.7	29.9
90°-150°	6210.0	54.4
90°-180°	7135.0	62.5
0°-180°	11412.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	538	577	650	735	762	50
15°	403	744	1254	1520	1568	112
25°	258	844	1494	1559	1561	119
35°	174	806	1407	1487	1545	109
45°	119	643	1243	1424	1488	92
55°	85	408	1055	1226	1259	78
65°	68	217	783	881	893	67
75°	50	133	430	472	474	52
85°	18	41	107	117	119	19
90°	7	21	56	28	28	7
95°	71	278	924	476	324	79
105°	254	385	1559	2368	2209	269
115°	451	548	1249	2492	2844	446
125°	628	704	1136	1920	2265	557
135°	748	824	1101	1550	1757	579
145°	868	923	1087	1322	1426	544
155°	981	1008	1087	1193	1228	451
165°	1059	1073	1087	1130	1144	299
175°	1101	1101	1094	1108	1108	104
180°	1101	1101	1101	1101	1101	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	552.3	552.3	552.3	552.3	552.3	552.3	552.3	552.3	552.3	552.3	552.3
2.5°	552.3	552.3	555.9	557.7	561.2	563.0	566.5	570.1	580.8	582.5	586.1
5°	538.1	545.2	568.3	577.2	602.1	635.8	650.0	673.1	721.1	735.3	744.1
7.5°	516.8	532.8	589.6	603.8	666.0	754.8	792.1	841.8	918.2	955.5	985.7
10°	483.1	516.8	618.0	651.8	753.0	888.0	957.3	1026.6	1142.1	1193.6	1213.1
12.5°	445.8	500.8	648.2	694.4	840.0	1037.3	1120.7	1197.1	1328.5	1397.8	1408.5
15°	403.2	477.7	676.7	744.1	932.4	1161.6	1253.9	1348.1	1470.6	1520.3	1532.8
17.5°	365.9	460.0	703.3	774.3	1003.4	1273.5	1367.6	1445.8	1545.2	1579.0	1587.8
20°	319.7	431.6	721.1	813.4	1078.1	1355.2	1445.8	1506.1	1573.6	1594.9	1598.5
22.5°	285.9	401.4	731.7	827.6	1127.8	1404.9	1481.3	1529.2	1575.4	1582.5	1584.3
25°	257.5	367.6	729.9	843.6	1170.5	1435.1	1493.7	1529.2	1555.9	1559.4	1559.4
27.5°	230.9	330.3	722.8	847.2	1202.4	1442.2	1488.4	1513.2	1525.7	1532.8	1532.8
30°	207.8	294.8	705.1	840.0	1216.6	1435.1	1472.4	1484.8	1497.3	1507.9	1513.2
32.5°	190.0	261.1	678.4	825.8	1218.4	1417.3	1444.0	1451.1	1468.8	1493.7	1502.6
35°	174.0	227.3	648.2	806.3	1207.8	1388.9	1406.7	1413.8	1449.3	1486.6	1499.0
37.5°	158.1	202.5	609.2	772.6	1191.8	1355.2	1367.6	1380.0	1435.1	1479.5	1493.7
40°	142.1	181.2	563.0	735.3	1166.9	1314.3	1325.0	1344.5	1417.3	1468.8	1483.0
42.5°	129.6	163.4	513.3	696.2	1135.0	1268.2	1284.1	1312.6	1396.0	1451.1	1467.1
45°	119.0	145.6	460.0	642.9	1094.1	1220.2	1243.3	1282.4	1371.2	1424.4	1438.6
47.5°	108.3	133.2	404.9	587.9	1049.7	1172.2	1202.4	1246.8	1337.4	1388.9	1401.4
50°	99.5	120.8	349.9	529.2	1001.7	1120.7	1156.3	1202.4	1294.8	1342.7	1358.7
52.5°	92.4	110.1	298.4	470.6	946.6	1067.5	1108.3	1156.3	1243.3	1289.5	1300.1
55°	85.2	101.2	254.0	408.5	889.8	1010.6	1055.0	1101.2	1186.5	1225.5	1232.6
57.5°	81.7	94.1	216.7	349.9	829.4	946.6	996.3	1039.0	1119.0	1149.2	1156.3
60°	76.4	88.8	188.3	300.1	763.7	886.2	928.8	971.5	1039.0	1063.9	1069.2
62.5°	71.0	85.2	166.9	252.2	696.2	815.2	857.8	896.9	953.7	971.5	978.6
65°	67.5	81.7	151.0	216.7	626.9	740.6	783.2	817.0	863.1	880.9	884.4
67.5°	63.9	78.1	138.5	186.5	557.7	666.0	698.0	729.9	765.5	783.2	785.0
70°	58.6	74.6	127.9	165.2	486.6	580.8	607.4	641.1	669.6	678.4	683.8
72.5°	55.1	69.3	120.8	149.2	413.8	499.1	523.9	543.5	568.3	577.2	577.2
75°	49.7	62.2	113.7	133.2	339.2	408.5	429.8	449.3	468.9	472.4	467.1
77.5°	44.4	55.1	97.7	111.9	264.6	323.2	341.0	351.6	367.6	371.2	373.0
80°	37.3	48.0	76.4	87.0	191.8	238.0	250.4	259.3	273.5	273.5	277.1
82.5°	28.4	37.3	55.1	62.2	129.6	163.4	174.0	179.4	188.3	188.3	188.3
85°	17.8	23.1	35.5	40.8	78.1	99.5	106.6	108.3	115.4	117.2	117.2
87.5°	8.9	12.4	23.1	24.9	40.8	51.5	51.5	55.1	55.1	53.3	51.5
90°	7.4	13.3	19.2	20.7	32.5	48.2	56.1	49.9	37.4	28.1	28.1
92.5°	29.6	79.8	130.1	142.6	200.4	277.6	316.1	277.1	199.0	140.4	134.8
95°	71.0	162.9	254.8	277.8	493.2	780.5	924.1	824.7	625.7	476.5	459.6
97.5°	122.6	203.7	284.9	305.1	664.4	1143.4	1382.9	1320.0	1194.3	1100.0	1067.8
100°	162.5	236.0	309.6	328.0	726.7	1258.2	1524.0	1528.6	1537.7	1544.7	1506.3
102.5°	196.5	265.1	333.7	350.8	755.2	1294.3	1563.9	1644.0	1804.2	1924.4	1891.5
105°	254.1	312.2	370.3	384.9	776.4	1298.4	1559.4	1739.0	2098.2	2367.6	2349.9
107.5°	313.2	367.4	421.5	435.1	780.4	1240.6	1470.8	1721.3	2222.3	2598.0	2602.3
110°	353.1	402.0	450.9	463.2	774.4	1189.4	1396.9	1677.0	2237.0	2657.2	2675.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	392.2	438.8	485.6	497.2	774.7	1144.7	1329.7	1616.3	2189.5	2619.5	2647.7
115°	451.4	494.3	537.4	548.2	781.8	1093.4	1249.1	1525.3	2077.6	2491.7	2530.9
117.5°	509.7	548.8	587.9	597.6	796.4	1061.2	1193.7	1442.9	1941.3	2315.1	2358.5
120°	543.7	580.5	617.2	626.4	808.2	1050.5	1171.6	1399.3	1854.7	2196.2	2238.4
122.5°	576.9	614.1	651.2	660.4	825.1	1044.7	1154.6	1359.6	1769.7	2077.3	2118.9
125°	627.9	661.7	695.6	704.0	848.0	1040.1	1136.1	1310.3	1658.7	1919.9	1958.3
127.5°	669.3	703.4	737.6	746.1	871.0	1037.5	1120.7	1270.2	1569.3	1793.6	1825.9
130°	691.4	728.2	764.9	774.2	887.6	1039.0	1114.7	1247.8	1514.1	1713.8	1743.7
132.5°	714.3	751.1	787.8	797.1	901.2	1040.1	1109.6	1228.7	1467.1	1645.8	1672.5
135°	748.3	781.8	815.4	823.7	916.1	1039.1	1100.7	1200.5	1400.1	1549.8	1572.9
137.5°	783.0	816.2	849.4	857.6	938.2	1045.5	1099.2	1183.5	1352.3	1478.9	1497.8
140°	811.8	842.4	872.9	880.5	951.7	1046.6	1094.0	1166.9	1312.7	1422.0	1439.7
142.5°	834.0	862.2	890.5	897.5	963.0	1050.3	1094.0	1158.0	1286.1	1382.2	1397.4
145°	868.0	892.6	917.3	923.4	977.9	1050.4	1086.6	1139.0	1243.7	1322.3	1333.8
147.5°	901.9	925.9	949.9	955.9	999.5	1057.6	1086.6	1127.8	1210.3	1272.1	1281.6
150°	924.1	945.8	967.5	972.9	1010.8	1061.3	1086.6	1121.5	1191.1	1243.3	1251.0
152.5°	947.1	963.5	979.9	984.0	1018.2	1063.8	1086.6	1116.4	1175.8	1220.4	1226.2
155°	981.0	993.1	1005.3	1008.3	1034.4	1069.2	1086.6	1110.3	1157.6	1193.0	1196.8
157.5°	1006.1	1017.9	1029.8	1032.7	1050.7	1074.7	1086.6	1105.0	1141.8	1169.4	1172.1
160°	1023.2	1032.4	1041.5	1043.8	1058.1	1077.1	1086.6	1102.5	1134.0	1157.6	1159.2
162.5°	1040.1	1047.0	1054.0	1055.7	1066.0	1079.7	1086.6	1100.0	1126.5	1146.5	1148.0
165°	1058.6	1064.8	1071.0	1072.6	1077.3	1083.5	1086.6	1096.1	1115.2	1129.5	1131.1
167.5°	1075.5	1078.5	1081.5	1082.2	1086.1	1091.4	1094.0	1100.2	1112.8	1122.1	1122.7
170°	1086.6	1089.6	1092.6	1093.3	1093.6	1093.8	1094.0	1100.2	1112.8	1122.1	1122.1
172.5°	1092.6	1093.2	1093.8	1094.0	1094.0	1094.0	1094.0	1099.0	1108.8	1116.2	1115.7
175°	1100.7	1100.7	1100.7	1100.7	1098.5	1095.5	1094.0	1097.1	1103.3	1108.0	1108.0
177.5°	1100.7	1100.7	1100.7	1100.7	1099.0	1096.7	1095.5	1098.0	1102.9	1106.6	1106.0
180°	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	552.3	552.3
2.5°	589.6	586.1
5°	758.4	761.9
7.5°	1021.3	1019.5
10°	1269.9	1285.9
12.5°	1451.1	1454.6
15°	1561.2	1568.3
17.5°	1603.8	1605.6
20°	1605.6	1602.0
22.5°	1586.1	1582.5
25°	1563.0	1561.2
27.5°	1541.7	1543.4
30°	1532.8	1538.1
32.5°	1532.8	1541.7
35°	1536.3	1545.2
37.5°	1534.6	1545.2
40°	1527.4	1539.9
42.5°	1507.9	1516.8
45°	1477.7	1488.4
47.5°	1438.6	1445.8
50°	1388.9	1396.0
52.5°	1326.8	1328.5
55°	1252.2	1259.3
57.5°	1172.2	1174.0
60°	1083.4	1088.8
62.5°	989.2	989.2
65°	889.8	893.3
67.5°	786.8	795.6
70°	682.0	683.8
72.5°	579.0	579.0
75°	472.4	474.2
77.5°	371.2	371.2
80°	275.3	277.1
82.5°	190.0	193.6
85°	119.0	119.0
87.5°	55.1	49.7
90°	28.1	28.1
92.5°	112.5	90.1
95°	392.0	324.3
97.5°	939.1	810.4
100°	1353.0	1199.7
102.5°	1760.2	1628.9
105°	2279.3	2208.7
107.5°	2619.4	2636.5
110°	2749.1	2822.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2760.6	2873.6
115°	2687.4	2844.1
117.5°	2532.2	2705.9
120°	2407.2	2575.9
122.5°	2285.4	2451.8
125°	2111.6	2264.9
127.5°	1955.3	2084.7
130°	1863.2	1982.7
132.5°	1779.6	1886.6
135°	1665.2	1757.4
137.5°	1573.3	1648.8
140°	1510.2	1580.8
142.5°	1458.1	1518.8
145°	1379.8	1425.7
147.5°	1319.7	1357.8
150°	1281.8	1312.7
152.5°	1249.5	1272.8
155°	1212.3	1227.7
157.5°	1182.9	1193.7
160°	1165.4	1171.6
162.5°	1153.9	1159.8
165°	1137.4	1143.6
167.5°	1125.4	1128.0
170°	1122.1	1122.1
172.5°	1113.4	1111.1
175°	1108.0	1108.0
177.5°	1103.3	1100.7
180°	1100.7	1100.7



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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	3.01	3.79	4.06	4.85	6.29	16.19	16.97	17.24	18.03	19.47
	3H	3.71	4.41	4.77	5.48	6.94	18.02	18.72	19.08	19.79	21.25
	4H	4.00	4.67	5.07	5.74	7.20	18.66	19.33	19.73	20.40	21.86
	6H	4.25	4.87	5.33	5.94	7.41	19.09	19.70	20.17	20.78	22.25
	8H	4.31	4.90	5.40	5.99	7.46	19.21	19.79	20.29	20.88	22.35
	12H	4.33	4.89	5.42	5.97	7.46	19.27	19.83	20.36	20.91	22.41
4H	2H	10.21	10.88	11.29	11.95	13.41	16.45	17.12	17.53	18.19	19.65
	3H	11.77	12.33	12.86	13.43	14.91	18.49	19.05	19.58	20.15	21.62
	4H	11.86	12.38	12.96	13.47	14.96	19.25	19.77	20.34	20.85	22.35
	6H	11.87	12.31	12.97	13.42	14.91	19.79	20.23	20.89	21.34	22.83
	8H	11.85	12.26	12.95	13.36	14.87	19.95	20.36	21.05	21.46	22.97
	12H	11.80	12.17	12.92	13.29	14.80	20.04	20.41	21.16	21.53	23.04
8H	4H	13.30	13.72	14.40	14.82	16.33	19.31	19.72	20.41	20.82	22.33
	6H	13.54	13.88	14.66	15.03	16.53	19.93	20.27	21.06	21.42	22.92
	8H	13.56	13.86	14.69	14.98	16.51	20.15	20.45	21.28	21.58	23.10
	12H	13.52	13.79	14.66	14.91	16.47	20.29	20.56	21.43	21.68	23.24
12H	4H	13.44	13.82	14.56	14.93	16.44	19.26	19.63	20.37	20.75	22.26
	6H	13.80	14.10	14.93	15.23	16.75	19.91	20.21	21.04	21.34	22.86
	8H	13.86	14.13	15.00	15.25	16.81	20.14	20.40	21.27	21.53	23.09