

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: P938451

Luminaire Tested: SQ4-FB-150U-100D-930-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938451
REPORT IS A COMBINATION OF REPORTS P933639 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-930-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

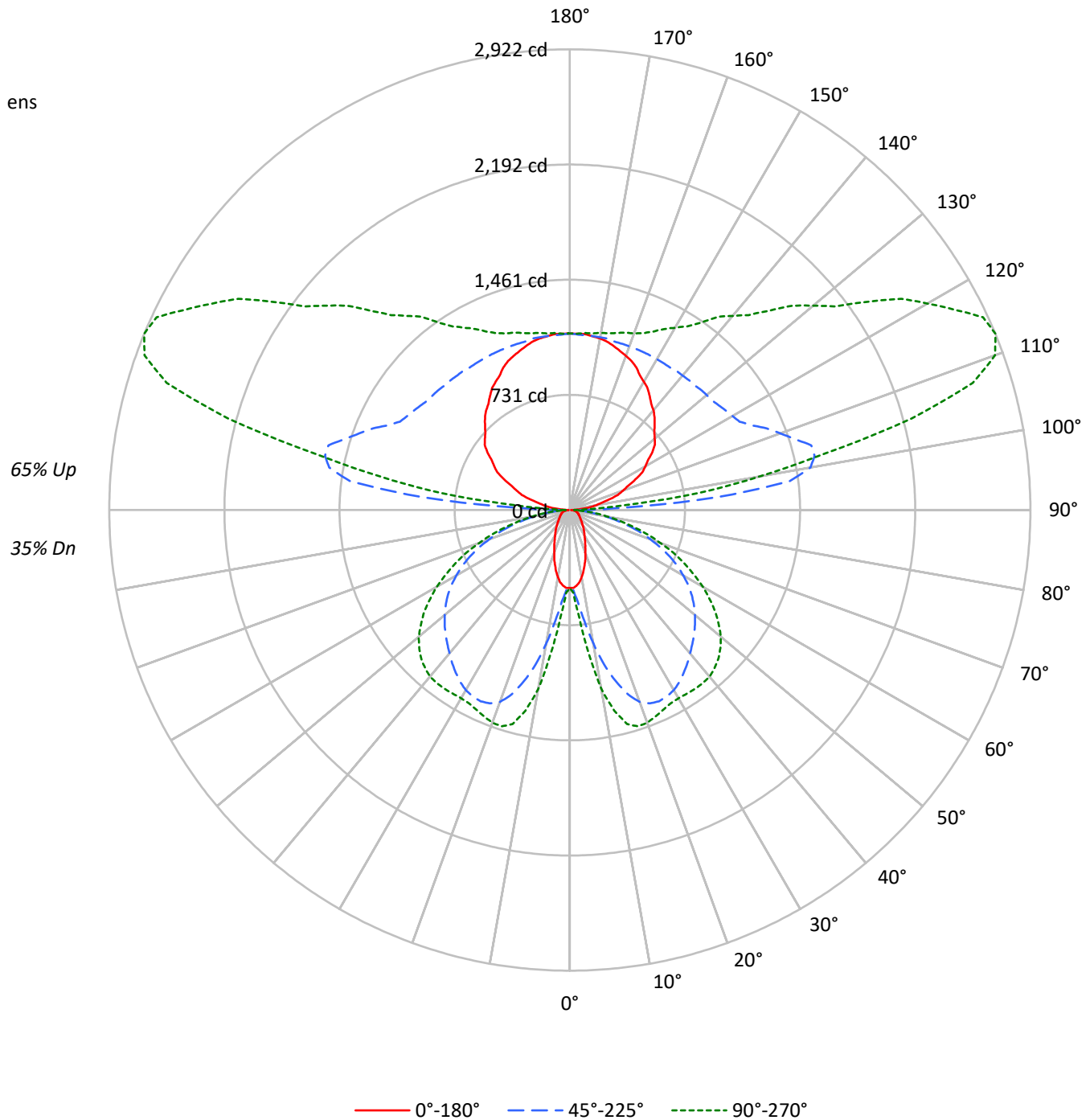
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11089.4 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 108.6
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				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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35				35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28				28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23				23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19				19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16				16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12				12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9				9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8				8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7				7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3062	3062	3062
5°	2990	3537	4115
10°	2711	5156	6822
15°	2304	6735	8238
20°	1874	7802	8396
25°	1563	8163	8225
30°	1317	8211	8210
35°	1164	8073	8422
40°	1014	7894	8641
45°	917	7762	8675
50°	841	7642	8532
55°	805	7469	8154
60°	823	7137	7556
65°	855	6635	6735
70°	908	5783	5691
75°	1004	4711	4441
80°	1087	3263	2993
85°	948	1728	1531

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8675 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	0.6
10°-20°	283.7	2.6
20°-30°	496.3	4.5
30°-40°	638.9	5.8
40°-50°	713.6	6.4
50°-60°	683.5	6.2
60°-70°	541.7	4.9
70°-80°	318.5	2.9
80°-90°	92.8	0.8
90°-100°	545.6	4.9
100°-110°	1434.5	12.9
110°-120°	1487.4	13.4
120°-130°	1193.1	10.8
130°-140°	936.2	8.4
140°-150°	718.5	6.5
150°-160°	517.5	4.7
160°-170°	316.6	2.9
170°-180°	107.0	1.0
0°-30°	844.1	7.6
0°-40°	1483.0	13.4
0°-60°	2880.1	26.0
0°-90°	3833.0	34.6
90°-120°	3467.6	31.3
90°-150°	6315.4	56.9
90°-180°	7256.0	65.4
0°-180°	11089.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	495	495	495	495	495	
5°	482	517	582	659	683	45
15°	361	667	1124	1362	1405	101
25°	231	756	1338	1397	1399	106
35°	156	722	1260	1332	1384	97
45°	107	576	1114	1276	1334	82
55°	76	366	945	1098	1128	70
65°	60	194	702	789	800	60
75°	45	119	385	423	425	47
85°	16	37	96	105	107	17
90°	8	21	57	29	29	7
95°	72	282	940	484	330	80
105°	258	391	1586	2408	2246	274
115°	459	557	1270	2534	2892	453
125°	638	716	1155	1952	2303	567
135°	761	838	1119	1576	1787	589
145°	883	939	1105	1345	1450	553
155°	998	1025	1105	1213	1249	458
165°	1077	1091	1105	1149	1163	304
175°	1119	1119	1113	1127	1127	106
180°	1119	1119	1119	1119	1119	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	494.9	494.9	494.9	494.9	494.9	494.9	494.9	494.9	494.9	494.9	494.9
2.5°	494.9	494.9	498.1	499.7	502.8	504.4	507.7	510.9	520.3	522.0	525.2
5°	482.2	488.5	509.3	517.2	539.5	569.7	582.4	603.1	646.1	658.9	666.8
7.5°	463.1	477.4	528.4	541.1	596.8	676.4	709.8	754.3	822.8	856.2	883.2
10°	432.8	463.1	553.8	584.0	674.8	795.7	857.8	919.8	1023.3	1069.4	1086.9
12.5°	399.4	448.8	580.9	622.2	752.7	929.4	1004.2	1072.6	1190.4	1252.4	1262.0
15°	361.3	428.1	606.3	666.8	835.4	1040.8	1123.6	1207.9	1317.6	1362.2	1373.4
17.5°	327.9	412.2	630.2	693.9	899.1	1141.1	1225.4	1295.4	1384.5	1414.7	1422.7
20°	286.4	386.7	646.1	728.9	966.0	1214.2	1295.4	1349.5	1410.0	1429.1	1432.2
22.5°	256.2	359.7	655.6	741.6	1010.5	1258.8	1327.2	1370.2	1411.6	1417.9	1419.5
25°	230.8	329.4	654.0	755.9	1048.7	1285.8	1338.4	1370.2	1394.1	1397.2	1397.2
27.5°	206.9	296.0	647.7	759.1	1077.4	1292.2	1333.5	1355.9	1367.0	1373.4	1373.4
30°	186.2	264.2	631.8	752.7	1090.1	1285.8	1319.2	1330.4	1341.6	1351.0	1355.9
32.5°	170.3	233.9	607.9	740.0	1091.7	1269.9	1293.8	1300.1	1316.0	1338.4	1346.3
35°	155.9	203.7	580.9	722.5	1082.1	1244.5	1260.4	1266.7	1298.5	1332.0	1343.1
37.5°	141.6	181.4	545.9	692.3	1067.8	1214.2	1225.4	1236.5	1285.8	1325.6	1338.4
40°	127.3	162.3	504.4	658.9	1045.5	1177.6	1187.2	1204.7	1269.9	1316.0	1328.8
42.5°	116.2	146.4	459.9	623.9	1016.9	1136.2	1150.5	1176.0	1250.8	1300.1	1314.5
45°	106.6	130.5	412.2	576.1	980.3	1093.3	1114.0	1149.0	1228.5	1276.3	1289.1
47.5°	97.1	119.3	362.9	526.8	940.5	1050.3	1077.4	1117.1	1198.3	1244.5	1255.6
50°	89.1	108.2	313.5	474.3	897.5	1004.2	1036.0	1077.4	1160.1	1203.1	1217.4
52.5°	82.8	98.7	267.3	421.7	848.2	956.5	993.0	1036.0	1114.0	1155.4	1164.9
55°	76.4	90.7	227.6	366.0	797.3	905.5	945.3	986.6	1063.0	1098.0	1104.4
57.5°	73.2	84.3	194.2	313.5	743.2	848.2	892.8	931.0	1002.5	1029.6	1036.0
60°	68.4	79.6	168.7	268.9	684.3	794.1	832.3	870.5	931.0	953.2	958.0
62.5°	63.7	76.4	149.6	226.0	623.9	730.4	768.6	803.6	854.6	870.5	876.9
65°	60.5	73.2	135.3	194.2	561.8	663.6	701.8	732.0	773.4	789.3	792.5
67.5°	57.3	70.0	124.1	167.1	499.7	596.8	625.4	654.0	685.9	701.8	703.4
70°	52.5	66.8	114.6	148.0	436.0	520.3	544.3	574.5	599.9	607.9	612.7
72.5°	49.3	62.1	108.2	133.7	370.8	447.2	469.4	486.9	509.3	517.2	517.2
75°	44.6	55.7	101.8	119.3	303.9	366.0	385.1	402.6	420.1	423.3	418.5
77.5°	39.7	49.3	87.5	100.3	237.1	289.6	305.5	315.1	329.4	332.6	334.2
80°	33.4	43.0	68.4	78.0	171.8	213.3	224.4	232.3	245.1	245.1	248.3
82.5°	25.5	33.4	49.3	55.7	116.2	146.4	155.9	160.8	168.7	168.7	168.7
85°	15.9	20.7	31.8	36.6	70.0	89.1	95.5	97.1	103.4	105.0	105.0
87.5°	7.9	11.2	20.7	22.2	36.6	46.2	46.2	49.3	49.3	47.8	46.2
90°	7.5	13.6	19.5	21.0	33.1	49.1	57.1	50.7	38.1	28.6	28.6
92.5°	30.0	81.1	132.3	145.0	203.9	282.3	321.5	281.8	202.4	142.8	137.1
95°	72.1	165.6	259.1	282.5	501.6	793.8	939.8	838.7	636.3	484.5	467.3
97.5°	124.7	207.2	289.6	310.3	675.6	1162.8	1406.4	1342.5	1214.5	1118.7	1085.9
100°	165.3	240.1	314.9	333.6	739.0	1279.6	1549.9	1554.5	1563.9	1570.9	1532.0
102.5°	199.9	269.6	339.4	356.9	768.1	1316.3	1590.4	1671.8	1834.8	1957.0	1923.6
105°	258.4	317.5	376.6	391.4	789.6	1320.5	1585.9	1768.5	2133.8	2407.8	2389.8
107.5°	318.6	373.6	428.7	442.5	793.5	1261.7	1495.7	1750.5	2260.0	2642.2	2646.5
110°	359.1	408.9	458.6	471.0	787.6	1209.6	1420.6	1705.4	2275.1	2702.3	2721.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	398.9	446.3	493.7	505.6	787.8	1164.1	1352.3	1643.7	2226.7	2664.0	2692.7
115°	459.0	502.8	546.5	557.4	795.1	1111.9	1270.3	1551.2	2112.8	2533.9	2573.8
117.5°	518.3	558.1	597.8	607.8	809.9	1079.3	1214.1	1467.5	1974.3	2354.4	2398.6
120°	552.9	590.4	627.8	637.1	821.9	1068.3	1191.5	1423.1	1886.2	2233.5	2276.3
122.5°	586.8	624.5	662.2	671.6	839.1	1062.5	1174.2	1382.8	1799.8	2112.5	2154.9
125°	638.5	672.9	707.4	716.0	862.4	1057.8	1155.4	1332.6	1686.8	1952.5	1991.4
127.5°	680.6	715.3	750.1	758.8	885.7	1055.0	1139.6	1291.7	1595.9	1824.0	1856.9
130°	703.2	740.6	778.0	787.3	902.8	1056.7	1133.7	1269.1	1539.8	1742.9	1773.3
132.5°	726.5	763.9	801.3	810.6	916.5	1057.8	1128.4	1249.5	1492.0	1673.8	1701.0
135°	761.0	795.1	829.2	837.7	931.6	1056.7	1119.4	1220.9	1423.9	1576.1	1599.6
137.5°	796.3	830.1	863.8	872.2	954.1	1063.3	1117.9	1203.7	1375.3	1504.0	1523.2
140°	825.6	856.7	887.7	895.5	967.9	1064.4	1112.6	1186.8	1335.0	1446.2	1464.1
142.5°	848.1	876.9	905.6	912.8	979.4	1068.2	1112.6	1177.8	1307.9	1405.6	1421.0
145°	882.7	907.8	932.8	939.1	994.4	1068.2	1105.1	1158.3	1264.9	1344.8	1356.4
147.5°	917.3	941.7	966.0	972.1	1016.4	1075.5	1105.1	1147.0	1230.8	1293.6	1303.3
150°	939.8	961.8	983.8	989.4	1027.9	1079.4	1105.1	1140.5	1211.2	1264.3	1272.2
152.5°	963.1	979.8	996.5	1000.7	1035.5	1081.9	1105.1	1135.3	1195.7	1241.0	1247.0
155°	997.6	1010.0	1022.4	1025.4	1052.0	1087.4	1105.1	1129.1	1177.2	1213.3	1217.2
157.5°	1023.2	1035.2	1047.3	1050.2	1068.6	1092.9	1105.1	1123.8	1161.2	1189.2	1192.0
160°	1040.5	1049.8	1059.2	1061.5	1076.0	1095.4	1105.1	1121.1	1153.2	1177.2	1178.8
162.5°	1057.8	1064.8	1071.8	1073.5	1084.0	1098.1	1105.1	1118.6	1145.6	1166.0	1167.5
165°	1076.6	1082.9	1089.2	1090.8	1095.5	1101.9	1105.1	1114.8	1134.2	1148.7	1150.3
167.5°	1093.8	1096.8	1099.9	1100.6	1104.6	1110.0	1112.6	1119.0	1131.7	1141.1	1141.8
170°	1105.1	1108.1	1111.1	1111.8	1112.1	1112.5	1112.6	1119.0	1131.7	1141.1	1141.1
172.5°	1111.1	1111.8	1112.5	1112.6	1112.6	1112.6	1112.6	1117.6	1127.7	1135.1	1134.6
175°	1119.4	1119.4	1119.4	1119.4	1117.1	1114.2	1112.6	1115.8	1122.1	1126.8	1126.8
177.5°	1119.4	1119.4	1119.4	1119.4	1117.6	1115.3	1114.1	1116.6	1121.6	1125.4	1124.8
180°	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4	1119.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	494.9	494.9
2.5°	528.4	525.2
5°	679.5	682.7
7.5°	915.0	913.5
10°	1137.9	1152.1
12.5°	1300.1	1303.3
15°	1398.8	1405.2
17.5°	1437.0	1438.6
20°	1438.6	1435.4
22.5°	1421.1	1417.9
25°	1400.4	1398.8
27.5°	1381.3	1382.9
30°	1373.4	1378.1
32.5°	1373.4	1381.3
35°	1376.6	1384.5
37.5°	1375.0	1384.5
40°	1368.6	1379.7
42.5°	1351.0	1359.1
45°	1324.1	1333.5
47.5°	1289.1	1295.4
50°	1244.5	1250.8
52.5°	1188.8	1190.4
55°	1122.0	1128.3
57.5°	1050.3	1051.9
60°	970.7	975.5
62.5°	886.4	886.4
65°	797.3	800.4
67.5°	705.0	712.9
70°	611.1	612.7
72.5°	518.8	518.8
75°	423.3	424.9
77.5°	332.6	332.6
80°	246.7	248.3
82.5°	170.3	173.4
85°	106.6	106.6
87.5°	49.3	44.6
90°	28.6	28.6
92.5°	114.3	91.6
95°	398.5	329.8
97.5°	955.0	824.1
100°	1376.0	1220.1
102.5°	1790.0	1656.5
105°	2318.0	2246.2
107.5°	2663.9	2681.2
110°	2795.7	2870.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2807.5	2922.4
115°	2733.0	2892.3
117.5°	2575.2	2751.9
120°	2448.0	2619.6
122.5°	2324.1	2493.4
125°	2147.4	2303.3
127.5°	1988.5	2120.1
130°	1894.8	2016.3
132.5°	1809.8	1918.7
135°	1693.4	1787.2
137.5°	1600.1	1676.8
140°	1535.9	1607.7
142.5°	1482.8	1544.6
145°	1403.2	1449.9
147.5°	1342.1	1380.8
150°	1303.6	1335.0
152.5°	1270.7	1294.4
155°	1232.8	1248.6
157.5°	1203.1	1214.1
160°	1185.1	1191.5
162.5°	1173.4	1179.4
165°	1156.6	1162.9
167.5°	1144.5	1147.2
170°	1141.1	1141.1
172.5°	1132.2	1129.9
175°	1126.8	1126.8
177.5°	1122.0	1119.4
180°	1119.4	1119.4



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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	3.28	4.04	4.35	5.12	6.60	16.45	17.21	17.52	18.29	19.76
	3H	3.98	4.66	5.06	5.75	7.24	18.27	18.96	19.35	20.04	21.53
	4H	4.27	4.92	5.37	6.01	7.51	18.91	19.56	20.00	20.65	22.14
	6H	4.52	5.12	5.62	6.21	7.72	19.33	19.93	20.43	21.02	22.53
	8H	4.58	5.15	5.69	6.26	7.76	19.45	20.02	20.55	21.12	22.63
	12H	4.60	5.14	5.71	6.24	7.77	19.51	20.05	20.62	21.15	22.68
4H	2H	10.47	11.12	11.57	12.21	13.71	16.71	17.36	17.81	18.45	19.94
	3H	12.03	12.58	13.14	13.69	15.20	18.74	19.28	19.85	20.40	21.91
	4H	12.12	12.62	13.24	13.73	15.26	19.50	20.00	20.61	21.10	22.63
	6H	12.13	12.56	13.25	13.69	15.21	20.03	20.46	21.15	21.58	23.11
	8H	12.10	12.50	13.22	13.62	15.16	20.18	20.58	21.30	21.70	23.24
	12H	12.05	12.42	13.19	13.55	15.09	20.27	20.63	21.41	21.77	23.31
8H	4H	13.56	13.96	14.68	15.08	16.62	19.55	19.95	20.67	21.07	22.61
	6H	13.79	14.13	14.94	15.29	16.82	20.17	20.50	21.31	21.66	23.20
	8H	13.81	14.10	14.96	15.24	16.80	20.39	20.68	21.53	21.82	23.37
	12H	13.77	14.03	14.93	15.17	16.76	20.52	20.78	21.67	21.92	23.51
12H	4H	13.69	14.06	14.83	15.19	16.73	19.50	19.86	20.63	20.99	22.54
	6H	14.05	14.34	15.20	15.48	17.04	20.15	20.44	21.30	21.58	23.14
	8H	14.11	14.37	15.27	15.51	17.10	20.37	20.63	21.53	21.77	23.36