

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: P938263

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938263  
REPORT IS A COMBINATION OF REPORTS P933637 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-6-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

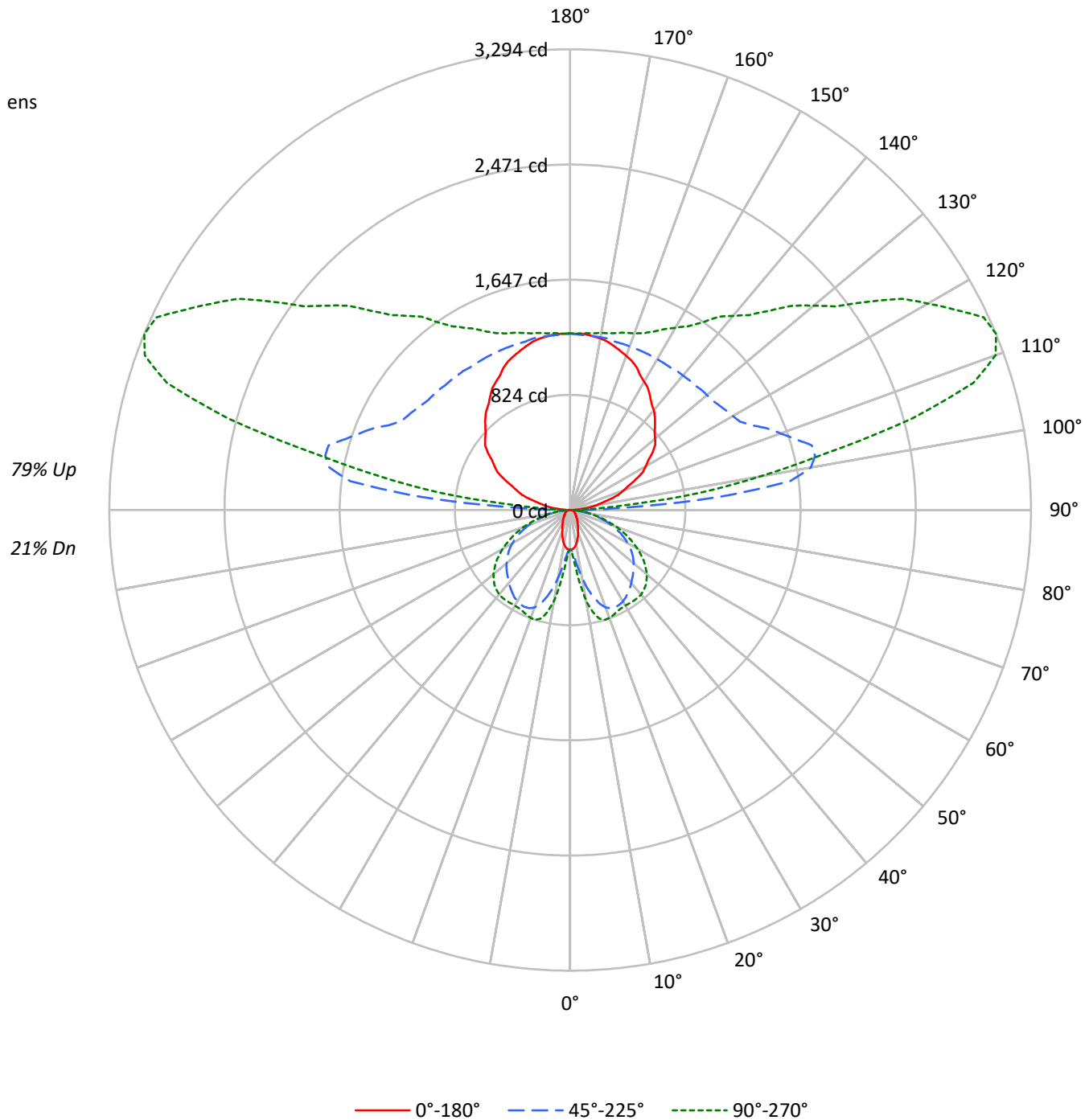
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10375.0 lumens  
Efficiency: N/A  
Efficacy: 124.4 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): 83.4  
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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### 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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	6	4

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

	0°	45°	90°
0°	1751	1751	1751
5°	1711	2024	2355
10°	1551	2950	3903
15°	1317	3853	4714
20°	1072	4464	4804
25°	895	4670	4706
30°	753	4698	4697
35°	666	4619	4818
40°	581	4516	4944
45°	525	4440	4964
50°	481	4372	4881
55°	460	4273	4665
60°	471	4084	4323
65°	489	3796	3853
70°	521	3309	3256
75°	574	2695	2541
80°	622	1867	1712
85°	543	990	876

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4964 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.6	0.4
10°-20°	162.3	1.6
20°-30°	283.9	2.7
30°-40°	365.5	3.5
40°-50°	408.3	3.9
50°-60°	391.0	3.8
60°-70°	309.9	3.0
70°-80°	182.2	1.8
80°-90°	55.4	0.5
90°-100°	615.1	5.9
100°-110°	1617.0	15.6
110°-120°	1676.7	16.2
120°-130°	1344.9	13.0
130°-140°	1055.3	10.2
140°-150°	810.0	7.8
150°-160°	583.3	5.6
160°-170°	356.9	3.4
170°-180°	120.6	1.2
0°-30°	482.9	4.7
0°-40°	848.4	8.2
0°-60°	1647.7	15.9
0°-90°	2195.3	21.2
90°-120°	3908.8	37.7
90°-150°	7118.9	68.6
90°-180°	8180.0	78.8
0°-180°	10375.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	283	283	283	283	283	
5°	276	296	333	377	391	25
15°	207	382	643	779	804	58
25°	132	432	766	799	800	61
35°	89	413	721	762	792	56
45°	61	330	637	730	763	47
55°	44	209	541	628	646	40
65°	35	111	402	452	458	34
75°	26	68	220	242	243	27
85°	9	21	55	60	61	10
90°	8	24	64	32	32	8
95°	81	318	1059	546	372	90
105°	291	441	1788	2714	2532	309
115°	517	628	1432	2856	3260	511
125°	720	807	1302	2201	2596	639
135°	858	944	1262	1777	2015	664
145°	995	1059	1246	1516	1634	623
155°	1125	1156	1246	1368	1407	517
165°	1214	1230	1246	1295	1311	342
175°	1262	1262	1254	1270	1270	120
180°	1262	1262	1262	1262	1262	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1	283.1
2.5°	283.1	283.1	284.9	285.8	287.8	288.7	290.5	292.3	297.7	298.6	300.4
5°	275.9	279.5	291.4	295.9	308.7	325.9	333.2	345.0	369.7	376.9	381.5
7.5°	264.9	273.2	302.2	309.6	341.4	387.0	406.1	431.6	470.7	489.9	505.4
10°	247.7	264.9	316.8	334.2	386.1	455.2	490.8	526.3	585.5	611.8	621.8
12.5°	228.6	256.8	332.3	356.0	430.7	531.7	574.5	613.7	681.0	716.5	722.0
15°	206.6	244.9	346.9	381.5	478.0	595.4	642.8	691.1	753.9	779.3	785.8
17.5°	187.5	235.8	360.5	397.0	514.4	652.8	701.0	741.1	792.1	809.4	813.9
20°	163.9	221.2	369.7	417.0	552.7	694.7	741.1	772.1	806.7	817.6	819.4
22.5°	146.5	205.7	375.1	424.2	578.1	720.1	759.3	783.9	807.6	811.2	812.1
25°	132.1	188.5	374.2	432.5	600.0	735.6	765.7	783.9	797.5	799.3	799.3
27.5°	118.4	169.4	370.6	434.3	616.4	739.3	763.0	775.7	782.1	785.8	785.8
30°	106.5	151.2	361.4	430.7	623.7	735.6	754.8	761.1	767.5	773.0	775.7
32.5°	97.4	133.9	347.8	423.3	624.6	726.6	740.2	743.9	752.9	765.7	770.3
35°	89.2	116.6	332.3	413.4	619.1	712.0	721.1	724.8	743.0	762.1	768.4
37.5°	81.0	103.8	312.3	396.1	610.9	694.7	701.0	707.5	735.6	758.4	765.7
40°	72.9	92.9	288.7	376.9	598.2	673.7	679.2	689.2	726.6	752.9	760.2
42.5°	66.4	83.7	263.1	356.9	581.7	650.1	658.2	672.8	715.6	743.9	752.0
45°	61.0	74.7	235.8	329.6	560.8	625.5	637.3	657.3	702.9	730.2	737.4
47.5°	55.6	68.2	207.6	301.3	538.1	600.9	616.4	639.1	685.6	712.0	718.3
50°	51.0	61.9	179.4	271.3	513.5	574.5	592.7	616.4	663.8	688.3	696.5
52.5°	47.3	56.5	153.0	241.3	485.3	547.2	568.2	592.7	637.3	661.0	666.5
55°	43.7	51.9	130.2	209.4	456.1	518.0	540.8	564.5	608.2	628.2	631.9
57.5°	41.9	48.2	111.1	179.4	425.2	485.3	510.8	532.6	573.6	589.1	592.7
60°	39.2	45.5	96.5	153.9	391.5	454.3	476.2	498.0	532.6	545.4	548.1
62.5°	36.4	43.7	85.6	129.3	356.9	417.9	439.7	459.8	488.9	498.0	501.6
65°	34.6	41.9	77.4	111.1	321.4	379.6	401.5	418.8	442.4	451.6	453.4
67.5°	32.8	40.1	71.1	95.6	285.8	341.4	357.8	374.2	392.4	401.5	402.4
70°	30.1	38.2	65.5	84.6	249.5	297.7	311.4	328.7	343.2	347.8	350.6
72.5°	28.2	35.5	61.9	76.5	212.2	255.8	268.6	278.6	291.4	295.9	295.9
75°	25.5	31.9	58.3	68.2	173.9	209.4	220.3	230.4	240.3	242.2	239.4
77.5°	22.7	28.2	50.1	57.4	135.7	165.7	174.8	180.3	188.5	190.3	191.2
80°	19.1	24.6	39.2	44.6	98.3	122.0	128.4	133.0	140.2	140.2	142.0
82.5°	14.6	19.1	28.2	31.9	66.4	83.7	89.2	92.0	96.5	96.5	96.5
85°	9.1	11.9	18.2	20.9	40.1	51.0	54.7	55.6	59.2	60.1	60.1
87.5°	4.5	6.3	11.9	12.8	20.9	26.4	26.4	28.2	28.2	27.3	26.4
90°	8.5	15.3	22.0	23.7	37.3	55.3	64.4	57.2	42.9	32.2	32.2
92.5°	33.9	91.4	149.1	163.5	229.8	318.3	362.4	317.6	228.1	160.9	154.5
95°	81.3	186.6	292.1	318.4	565.5	894.8	1059.4	945.4	717.2	546.2	526.8
97.5°	140.6	233.5	326.5	349.8	761.6	1310.8	1585.3	1513.2	1369.1	1261.0	1224.0
100°	186.3	270.6	354.9	376.0	833.0	1442.4	1747.1	1752.3	1762.9	1770.8	1726.9
102.5°	225.3	304.0	382.6	402.3	865.8	1483.7	1792.8	1884.5	2068.2	2206.0	2168.3
105°	291.3	357.9	424.5	441.2	890.0	1488.4	1787.7	1993.5	2405.3	2714.1	2693.8
107.5°	359.1	421.2	483.3	498.7	894.5	1422.2	1686.0	1973.3	2547.6	2978.3	2983.2
110°	404.8	460.9	516.9	531.0	887.8	1363.4	1601.3	1922.4	2564.5	3046.0	3067.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	449.7	503.1	556.5	569.9	888.1	1312.2	1524.3	1852.9	2510.0	3002.9	3035.3
115°	517.4	566.7	616.1	628.4	896.2	1253.4	1432.0	1748.5	2381.6	2856.3	2901.2
117.5°	584.3	629.1	673.9	685.1	912.9	1216.6	1368.5	1654.2	2225.4	2653.9	2703.7
120°	623.3	665.5	707.7	718.2	926.4	1204.2	1343.1	1604.1	2126.1	2517.6	2566.0
122.5°	661.4	703.9	746.5	757.1	945.9	1197.7	1323.6	1558.7	2028.7	2381.3	2429.0
125°	719.8	758.5	797.4	807.0	972.1	1192.4	1302.4	1502.1	1901.4	2200.9	2244.8
127.5°	767.2	806.3	845.5	855.3	998.4	1189.2	1284.6	1456.0	1798.9	2056.1	2093.2
130°	792.6	834.8	877.0	887.5	1017.7	1191.2	1277.9	1430.5	1735.7	1964.7	1998.9
132.5°	818.9	861.1	903.3	913.8	1033.2	1192.4	1271.9	1408.5	1681.8	1886.7	1917.4
135°	857.8	896.2	934.7	944.3	1050.1	1191.2	1261.8	1376.2	1605.0	1776.7	1803.1
137.5°	897.6	935.7	973.7	983.2	1075.5	1198.5	1260.1	1356.8	1550.3	1695.4	1717.0
140°	930.7	965.7	1000.7	1009.4	1091.0	1199.8	1254.2	1337.7	1504.8	1630.2	1650.4
142.5°	956.0	988.4	1020.8	1028.9	1104.0	1204.1	1254.2	1327.6	1474.3	1584.4	1601.8
145°	995.0	1023.3	1051.5	1058.6	1121.0	1204.1	1245.7	1305.7	1425.8	1515.9	1529.0
147.5°	1034.0	1061.5	1088.9	1095.8	1145.8	1212.4	1245.7	1292.9	1387.3	1458.2	1469.2
150°	1059.4	1084.2	1109.0	1115.2	1158.7	1216.7	1245.7	1285.6	1365.3	1425.2	1434.0
152.5°	1085.7	1104.5	1123.3	1128.0	1167.2	1219.5	1245.7	1279.7	1347.9	1398.9	1405.6
155°	1124.6	1138.5	1152.5	1155.9	1185.9	1225.8	1245.7	1272.7	1327.0	1367.6	1372.0
157.5°	1153.4	1166.9	1180.5	1183.9	1204.5	1231.9	1245.7	1266.8	1309.0	1340.5	1343.6
160°	1172.9	1183.4	1193.9	1196.5	1212.9	1234.7	1245.7	1263.8	1299.9	1327.0	1328.8
162.5°	1192.4	1200.2	1208.1	1210.1	1222.0	1237.8	1245.7	1260.9	1291.4	1314.3	1316.0
165°	1213.5	1220.7	1227.8	1229.6	1234.9	1242.1	1245.7	1256.6	1278.4	1294.8	1296.6
167.5°	1233.0	1236.4	1239.8	1240.6	1245.1	1251.2	1254.2	1261.3	1275.6	1286.3	1287.0
170°	1245.7	1249.0	1252.5	1253.3	1253.6	1254.0	1254.2	1261.3	1275.6	1286.3	1286.3
172.5°	1252.5	1253.2	1254.0	1254.2	1254.2	1254.2	1254.2	1259.8	1271.1	1279.5	1278.9
175°	1261.8	1261.8	1261.8	1261.8	1259.3	1255.9	1254.2	1257.7	1264.9	1270.2	1270.2
177.5°	1261.8	1261.8	1261.8	1261.8	1259.8	1257.2	1255.8	1258.6	1264.3	1268.6	1267.9
180°	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8	1261.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	283.1	283.1
2.5°	302.2	300.4
5°	388.8	390.6
7.5°	523.5	522.6
10°	651.0	659.1
12.5°	743.9	745.7
15°	800.3	804.0
17.5°	822.2	823.1
20°	823.1	821.3
22.5°	813.0	811.2
25°	801.2	800.3
27.5°	790.3	791.2
30°	785.8	788.5
32.5°	785.8	790.3
35°	787.6	792.1
37.5°	786.7	792.1
40°	783.0	789.4
42.5°	773.0	777.5
45°	757.5	763.0
47.5°	737.4	741.1
50°	712.0	715.6
52.5°	680.1	681.0
55°	641.8	645.6
57.5°	600.9	601.8
60°	555.4	558.1
62.5°	507.2	507.2
65°	456.1	457.9
67.5°	403.3	407.9
70°	349.7	350.6
72.5°	296.8	296.8
75°	242.2	243.1
77.5°	190.3	190.3
80°	141.1	142.0
82.5°	97.4	99.2
85°	61.0	61.0
87.5°	28.2	25.5
90°	32.2	32.2
92.5°	128.9	103.3
95°	449.2	371.7
97.5°	1076.5	929.0
100°	1551.1	1375.3
102.5°	2017.8	1867.3
105°	2612.9	2532.0
107.5°	3002.8	3022.3
110°	3151.4	3235.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3164.7	3294.2
115°	3080.7	3260.3
117.5°	2902.9	3102.0
120°	2759.5	2952.9
122.5°	2619.8	2810.6
125°	2420.6	2596.4
127.5°	2241.5	2389.8
130°	2135.9	2272.9
132.5°	2040.1	2162.8
135°	1908.9	2014.6
137.5°	1803.6	1890.2
140°	1731.3	1812.2
142.5°	1671.5	1741.1
145°	1581.7	1634.4
147.5°	1512.8	1556.5
150°	1469.4	1504.8
152.5°	1432.3	1459.1
155°	1389.7	1407.4
157.5°	1356.1	1368.5
160°	1335.9	1343.1
162.5°	1322.7	1329.5
165°	1303.7	1310.9
167.5°	1290.1	1293.1
170°	1286.3	1286.3
172.5°	1276.3	1273.7
175°	1270.2	1270.2
177.5°	1264.8	1261.8
180°	1261.8	1261.8



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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	0.00	0.04	0.54	1.19	2.82	12.54	13.20	13.70	14.36	15.99
	3H	0.06	0.66	1.24	1.82	3.46	14.36	14.95	15.53	16.11	17.76
	4H	0.35	0.92	1.54	2.08	3.73	14.99	15.56	16.17	16.72	18.37
	6H	0.59	1.11	1.78	2.28	3.94	15.40	15.93	16.59	17.09	18.75
	8H	0.65	1.15	1.85	2.33	3.98	15.52	16.01	16.71	17.19	18.84
	12H	0.66	1.14	1.86	2.31	3.98	15.58	16.05	16.77	17.22	18.89
4H	2H	6.55	7.12	7.74	8.28	9.93	12.79	13.35	13.98	14.52	16.16
	3H	8.10	8.58	9.30	9.77	11.43	14.81	15.28	16.00	16.47	18.13
	4H	8.19	8.63	9.39	9.80	11.48	15.56	16.00	16.76	17.18	18.85
	6H	8.19	8.56	9.39	9.76	11.43	16.09	16.46	17.29	17.66	19.32
	8H	8.16	8.51	9.36	9.70	11.38	16.24	16.59	17.44	17.78	19.46
	12H	8.11	8.42	9.32	9.62	11.31	16.32	16.64	17.54	17.84	19.53
8H	4H	9.61	9.96	10.81	11.15	12.84	15.61	15.96	16.81	17.15	18.83
	6H	9.85	10.14	11.06	11.37	13.05	16.22	16.51	17.44	17.74	19.42
	8H	9.86	10.11	11.08	11.32	13.02	16.44	16.69	17.66	17.90	19.60
	12H	9.82	10.04	11.05	11.25	12.98	16.57	16.79	17.80	17.99	19.73
12H	4H	9.75	10.06	10.96	11.26	12.95	15.55	15.87	16.76	17.07	18.76
	6H	10.10	10.35	11.32	11.56	13.26	16.20	16.45	17.43	17.66	19.36
	8H	10.16	10.38	11.39	11.59	13.32	16.42	16.64	17.65	17.85	19.58