

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: P937821

Luminaire Tested: SQ4-FB-125U-050D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937821
REPORT IS A COMBINATION OF REPORTS P933589 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-050D-927-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

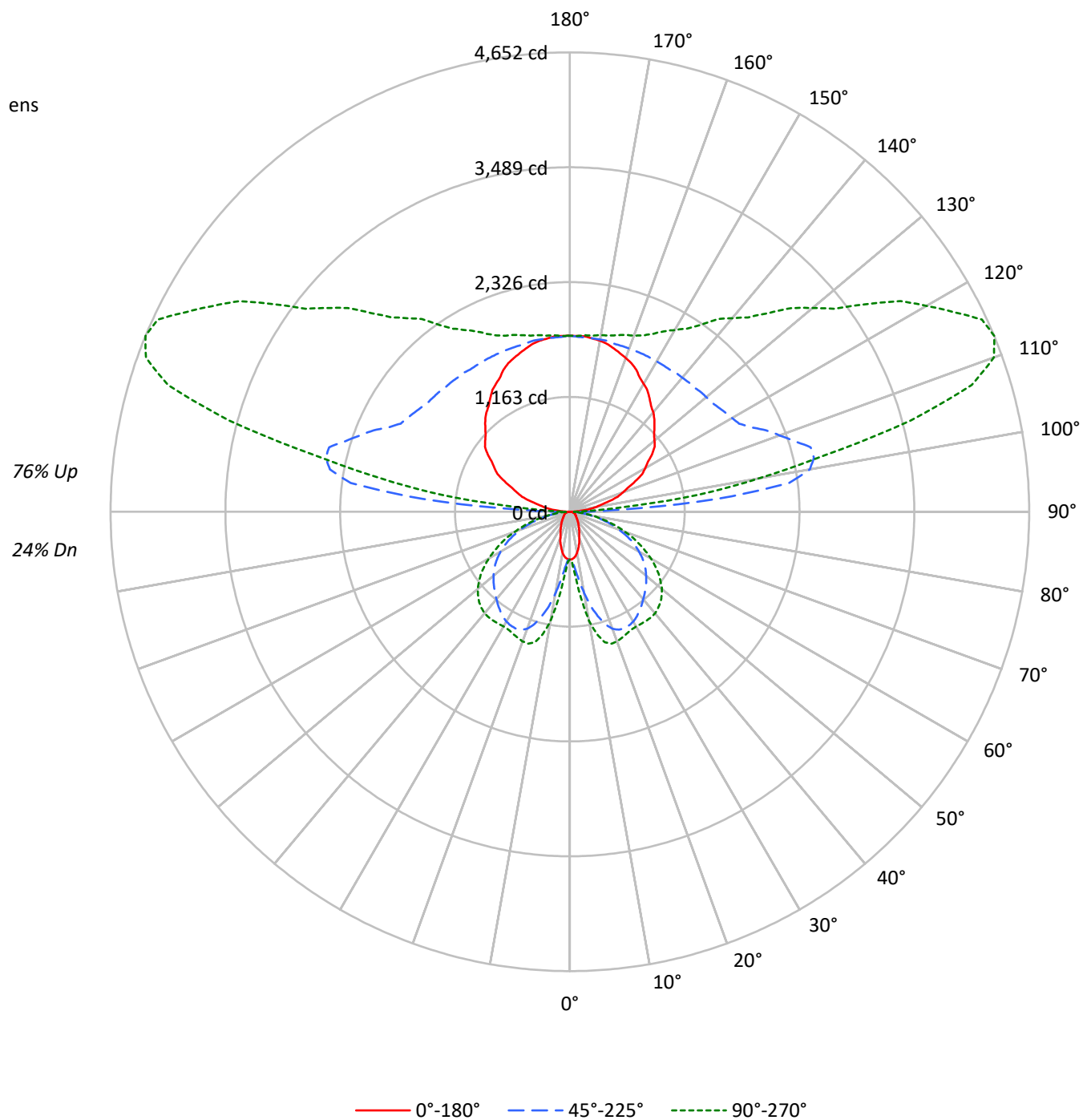
Lumens per Lamp: N/A
Luminaire Lumens: 15286.8 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 142.8
Input Voltage (V): NR
Input Current (Ain): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	22	20	19
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1491	1491	1491
5°	1457	1723	2003
10°	1322	2512	3321
15°	1124	3283	4010
20°	915	3805	4087
25°	764	3983	4004
30°	644	4009	3996
35°	570	3944	4100
40°	497	3858	4207
45°	450	3796	4223
50°	414	3740	4153
55°	396	3658	3969
60°	406	3499	3678
65°	424	3257	3279
70°	452	2842	2770
75°	503	2319	2161
80°	554	1610	1457
85°	502	855	745

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 4417 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	0.4
10°-20°	276.2	1.8
20°-30°	483.2	3.2
30°-40°	622.0	4.1
40°-50°	694.8	4.5
50°-60°	665.4	4.4
60°-70°	527.4	3.4
70°-80°	310.1	2.0
80°-90°	93.0	0.6
90°-100°	868.7	5.7
100°-110°	2283.8	14.9
110°-120°	2368.0	15.5
120°-130°	1899.5	12.4
130°-140°	1490.4	9.7
140°-150°	1143.9	7.5
150°-160°	823.8	5.4
160°-170°	504.1	3.3
170°-180°	170.3	1.1
0°-30°	821.8	5.4
0°-40°	1443.8	9.4
0°-60°	2804.0	18.3
0°-90°	3734.4	24.4
90°-120°	5520.5	36.1
90°-150°	10054.3	65.8
90°-180°	11552.0	75.6
0°-180°	15286.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	470	504	567	641	665	43
15°	352	649	1094	1326	1368	98
25°	225	736	1303	1360	1362	103
35°	152	703	1227	1297	1348	95
45°	104	561	1084	1242	1298	80
55°	74	356	920	1069	1098	68
65°	59	189	683	768	779	58
75°	43	116	375	412	414	45
85°	16	36	93	102	104	16
90°	12	34	91	45	45	11
95°	115	450	1496	772	525	127
105°	411	623	2525	3833	3576	436
115°	731	887	2022	4034	4605	722
125°	1017	1140	1840	3108	3667	903
135°	1212	1334	1782	2509	2845	937
145°	1405	1495	1759	2141	2308	880
155°	1588	1633	1759	1932	1988	730
165°	1714	1737	1759	1829	1852	484
175°	1782	1782	1771	1794	1794	169
180°	1782	1782	1782	1782	1782	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	481.9	481.9	484.9	486.5	489.6	491.1	494.3	497.3	506.7	508.2	511.3
5°	469.5	475.6	495.8	503.5	525.2	554.6	567.0	587.2	629.0	641.4	649.2
7.5°	450.8	464.8	514.4	526.8	581.0	658.5	691.0	734.4	801.0	833.5	859.9
10°	421.4	450.8	539.2	568.6	656.9	774.7	835.1	895.5	996.2	1041.2	1058.2
12.5°	388.8	436.9	565.5	605.8	732.8	904.8	977.7	1044.3	1158.9	1219.4	1228.6
15°	351.7	416.8	590.3	649.2	813.4	1013.2	1093.9	1175.9	1282.9	1326.2	1337.1
17.5°	319.2	401.2	613.5	675.5	875.4	1110.9	1193.0	1261.2	1348.0	1377.4	1385.2
20°	278.9	376.5	629.0	709.6	940.5	1182.2	1261.2	1313.9	1372.8	1391.3	1394.4
22.5°	249.5	350.1	638.3	722.0	983.8	1225.5	1292.1	1334.0	1374.3	1380.5	1382.0
25°	224.7	320.7	636.8	736.0	1021.0	1251.9	1303.0	1334.0	1357.2	1360.4	1360.4
27.5°	201.4	288.2	630.6	739.0	1048.9	1258.1	1298.4	1320.0	1330.9	1337.1	1337.1
30°	181.3	257.2	615.1	732.8	1061.3	1251.9	1284.4	1295.3	1306.1	1315.4	1320.0
32.5°	165.8	227.8	591.8	720.4	1062.8	1236.4	1259.6	1265.8	1281.3	1303.0	1310.8
35°	151.8	198.4	565.5	703.4	1053.6	1211.6	1227.1	1233.3	1264.3	1296.8	1307.6
37.5°	137.9	176.6	531.5	674.0	1039.6	1182.2	1193.0	1203.8	1251.9	1290.6	1303.0
40°	124.0	158.0	491.1	641.4	1017.9	1146.5	1155.8	1172.9	1236.4	1281.3	1293.7
42.5°	113.1	142.5	447.8	607.4	990.1	1106.3	1120.2	1145.0	1217.8	1265.8	1279.7
45°	103.8	127.0	401.2	560.9	954.4	1064.4	1084.5	1118.7	1196.1	1242.5	1254.9
47.5°	94.5	116.2	353.3	512.8	915.7	1022.6	1048.9	1087.6	1166.6	1211.6	1222.5
50°	86.8	105.3	305.2	461.7	873.8	977.7	1008.6	1048.9	1129.5	1171.3	1185.3
52.5°	80.5	96.1	260.3	410.6	825.8	931.2	966.8	1008.6	1084.5	1124.8	1134.1
55°	74.4	88.3	221.5	356.4	776.2	881.6	920.3	960.6	1035.0	1069.1	1075.2
57.5°	71.3	82.1	189.0	305.2	723.6	825.8	869.2	906.4	976.1	1002.5	1008.6
60°	66.6	77.5	164.2	261.9	666.2	773.2	810.3	847.5	906.4	928.1	932.7
62.5°	62.0	74.4	145.6	220.0	607.4	711.2	748.4	782.4	832.0	847.5	853.7
65°	58.9	71.3	131.7	189.0	546.9	646.1	683.3	712.7	753.0	768.5	771.5
67.5°	55.7	68.1	120.8	162.7	486.5	581.0	608.9	636.8	667.7	683.3	684.8
70°	51.1	65.1	111.6	144.1	424.5	506.7	529.9	559.3	584.1	591.8	596.5
72.5°	48.0	60.4	105.3	130.1	361.0	435.4	457.1	474.1	495.8	503.5	503.5
75°	43.4	54.2	99.2	116.2	295.9	356.4	374.9	392.0	409.0	412.1	407.5
77.5°	38.7	48.0	85.2	97.6	230.8	282.0	297.5	306.8	320.7	323.8	325.3
80°	32.6	41.8	66.6	75.9	167.3	207.6	218.4	226.2	238.6	238.6	241.7
82.5°	24.8	32.6	48.0	54.2	113.1	142.5	151.8	156.5	164.2	164.2	164.2
85°	15.5	20.2	31.0	35.7	68.1	86.8	92.9	94.5	100.7	102.3	102.3
87.5°	7.8	10.9	20.2	21.7	35.7	45.0	45.0	48.0	48.0	46.5	45.0
90°	11.9	21.5	31.1	33.5	52.6	78.1	90.9	80.8	60.6	45.4	45.4
92.5°	47.8	129.1	210.5	230.8	324.6	449.4	511.9	448.6	322.1	227.2	218.2
95°	114.8	263.6	412.5	449.7	798.5	1263.6	1496.2	1335.1	1013.0	771.5	744.1
97.5°	198.5	329.8	461.2	494.0	1075.6	1851.2	2238.9	2137.1	1933.5	1780.9	1728.7
100°	263.1	382.2	501.3	531.1	1176.5	2037.1	2467.4	2474.9	2489.7	2500.9	2438.8
102.5°	318.2	429.3	540.3	568.1	1222.8	2095.6	2532.0	2661.7	2921.1	3115.7	3062.5
105°	411.4	505.5	599.6	623.2	1257.0	2102.2	2524.8	2815.5	3397.1	3833.2	3804.6
107.5°	507.1	594.8	682.5	704.5	1263.4	2008.7	2381.3	2786.9	3598.0	4206.4	4213.3
110°	571.7	650.9	730.1	749.9	1253.8	1925.7	2261.6	2715.1	3621.9	4302.1	4331.9

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	635.1	710.6	786.0	804.9	1254.2	1853.3	2152.8	2616.9	3545.0	4241.1	4286.8
115°	730.7	800.3	870.0	887.4	1265.8	1770.2	2022.5	2469.5	3363.6	4034.2	4097.6
117.5°	825.3	888.5	951.8	967.6	1289.3	1718.3	1932.8	2336.3	3143.1	3748.3	3818.6
120°	880.3	939.8	999.4	1014.2	1308.5	1700.8	1896.9	2265.6	3002.8	3555.8	3624.1
122.5°	934.1	994.1	1054.2	1069.2	1336.0	1691.6	1869.4	2201.4	2865.2	3363.2	3430.6
125°	1016.6	1071.4	1126.1	1139.8	1373.1	1684.0	1839.5	2121.4	2685.5	3108.4	3170.5
127.5°	1083.6	1138.9	1194.2	1208.0	1410.1	1679.6	1814.4	2056.4	2540.7	2903.9	2956.3
130°	1119.5	1179.0	1238.5	1253.4	1437.2	1682.3	1804.8	2020.3	2451.4	2774.8	2823.1
132.5°	1156.5	1216.1	1275.7	1290.5	1459.2	1684.0	1796.4	1989.4	2375.3	2664.7	2708.1
135°	1211.6	1265.8	1320.0	1333.6	1483.1	1682.4	1782.1	1943.7	2266.9	2509.3	2546.6
137.5°	1267.8	1321.5	1375.1	1388.5	1518.9	1692.8	1779.7	1916.3	2189.5	2394.4	2425.0
140°	1314.4	1363.8	1413.3	1425.7	1540.8	1694.5	1771.3	1889.3	2125.3	2302.3	2330.9
142.5°	1350.3	1396.0	1441.7	1453.1	1559.2	1700.6	1771.3	1875.0	2082.3	2237.8	2262.3
145°	1405.3	1445.2	1485.1	1495.0	1583.1	1700.6	1759.4	1844.2	2013.7	2140.8	2159.5
147.5°	1460.3	1499.1	1537.9	1547.6	1618.2	1712.3	1759.4	1826.1	1959.5	2059.5	2074.9
150°	1496.2	1531.3	1566.4	1575.2	1636.6	1718.4	1759.4	1815.7	1928.4	2012.9	2025.3
152.5°	1533.3	1559.9	1586.5	1593.1	1648.6	1722.4	1759.4	1807.5	1903.7	1975.8	1985.3
155°	1588.3	1608.0	1627.6	1632.6	1674.8	1731.2	1759.4	1797.6	1874.2	1931.5	1937.8
157.5°	1629.0	1648.1	1667.3	1672.1	1701.2	1740.0	1759.4	1789.1	1848.6	1893.3	1897.7
160°	1656.5	1671.4	1686.3	1690.0	1713.1	1744.0	1759.4	1784.9	1835.9	1874.2	1876.7
162.5°	1684.0	1695.2	1706.3	1709.1	1725.9	1748.2	1759.4	1780.9	1824.0	1856.2	1858.6
165°	1713.9	1724.0	1734.0	1736.6	1744.2	1754.3	1759.4	1774.8	1805.6	1828.7	1831.2
167.5°	1741.4	1746.2	1751.0	1752.1	1758.5	1767.1	1771.3	1781.4	1801.6	1816.7	1817.8
170°	1759.4	1764.1	1768.9	1770.1	1770.5	1771.0	1771.3	1781.4	1801.6	1816.7	1816.7
172.5°	1768.9	1770.0	1771.1	1771.3	1771.3	1771.3	1771.3	1779.3	1795.3	1807.2	1806.3
175°	1782.1	1782.1	1782.1	1782.1	1778.5	1773.7	1771.3	1776.4	1786.5	1794.0	1794.0
177.5°	1782.1	1782.1	1782.1	1782.1	1779.3	1775.5	1773.7	1777.7	1785.6	1791.6	1790.6
180°	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1	1782.1

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	481.9	481.9
2.5°	514.4	511.3
5°	661.6	664.7
7.5°	890.9	889.4
10°	1107.8	1121.7
12.5°	1265.8	1268.9
15°	1361.9	1368.1
17.5°	1399.1	1400.6
20°	1400.6	1397.6
22.5°	1383.5	1380.5
25°	1363.4	1361.9
27.5°	1344.8	1346.4
30°	1337.1	1341.7
32.5°	1337.1	1344.8
35°	1340.2	1348.0
37.5°	1338.6	1348.0
40°	1332.4	1343.3
42.5°	1315.4	1323.2
45°	1289.1	1298.4
47.5°	1254.9	1261.2
50°	1211.6	1217.8
52.5°	1157.4	1158.9
55°	1092.3	1098.5
57.5°	1022.6	1024.1
60°	945.1	949.7
62.5°	863.0	863.0
65°	776.2	779.3
67.5°	686.4	694.1
70°	595.0	596.5
72.5°	505.1	505.1
75°	412.1	413.6
77.5°	323.8	323.8
80°	240.2	241.7
82.5°	165.8	168.9
85°	103.8	103.8
87.5°	48.0	43.4
90°	45.4	45.4
92.5°	182.0	145.9
95°	634.6	525.1
97.5°	1520.4	1312.0
100°	2190.6	1942.3
102.5°	2849.8	2637.2
105°	3690.4	3576.1
107.5°	4240.9	4268.6
110°	4450.9	4570.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4469.6	4652.5
115°	4351.1	4604.7
117.5°	4099.8	4381.0
120°	3897.3	4170.5
122.5°	3700.1	3969.6
125°	3418.7	3667.0
127.5°	3165.7	3375.1
130°	3016.6	3210.1
132.5°	2881.3	3054.6
135°	2695.9	2845.3
137.5°	2547.2	2669.5
140°	2445.2	2559.5
142.5°	2360.7	2459.0
145°	2233.8	2308.3
147.5°	2136.6	2198.3
150°	2075.4	2125.4
152.5°	2023.0	2060.8
155°	1962.8	1987.8
157.5°	1915.2	1932.8
160°	1886.8	1896.9
162.5°	1868.2	1877.7
165°	1841.3	1851.5
167.5°	1822.1	1826.3
170°	1816.7	1816.7
172.5°	1802.5	1798.8
175°	1794.0	1794.0
177.5°	1786.3	1782.1
180°	1782.1	1782.1

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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	0.07	0.53	1.21	2.80	12.57	13.26	13.72	14.40	15.99
	3H	0.07	0.69	1.23	1.83	3.44	14.41	15.02	15.56	16.17	17.77
	4H	0.36	0.95	1.52	2.09	3.71	15.05	15.63	16.21	16.78	18.39
	6H	0.60	1.14	1.77	2.29	3.91	15.47	16.01	16.64	17.16	18.78
	8H	0.67	1.18	1.84	2.34	3.96	15.59	16.10	16.76	17.27	18.88
	12H	0.68	1.16	1.85	2.32	3.96	15.65	16.14	16.83	17.30	18.94
4H	2H	6.58	7.17	7.75	8.32	9.93	12.83	13.41	14.00	14.56	16.17
	3H	8.13	8.62	9.31	9.79	11.42	14.86	15.35	16.04	16.52	18.15
	4H	8.22	8.67	9.40	9.83	11.47	15.62	16.07	16.80	17.23	18.88
	6H	8.22	8.61	9.40	9.79	11.42	16.16	16.54	17.34	17.72	19.36
	8H	8.19	8.55	9.37	9.73	11.38	16.32	16.68	17.50	17.85	19.50
	12H	8.14	8.47	9.34	9.65	11.31	16.40	16.73	17.60	17.92	19.57
8H	4H	9.65	10.01	10.83	11.19	12.84	15.67	16.03	16.85	17.20	18.85
	6H	9.89	10.19	11.09	11.40	13.05	16.29	16.59	17.49	17.81	19.45
	8H	9.90	10.16	11.11	11.36	13.02	16.51	16.77	17.72	17.97	19.63
	12H	9.86	10.09	11.07	11.28	12.98	16.65	16.88	17.86	18.07	19.77
12H	4H	9.79	10.12	10.99	11.30	12.96	15.61	15.94	16.81	17.12	18.78
	6H	10.15	10.41	11.35	11.60	13.27	16.27	16.53	17.48	17.73	19.39
	8H	10.21	10.43	11.42	11.62	13.32	16.50	16.73	17.71	17.92	19.62