

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: P937761

Luminaire Tested: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

**Test Information**

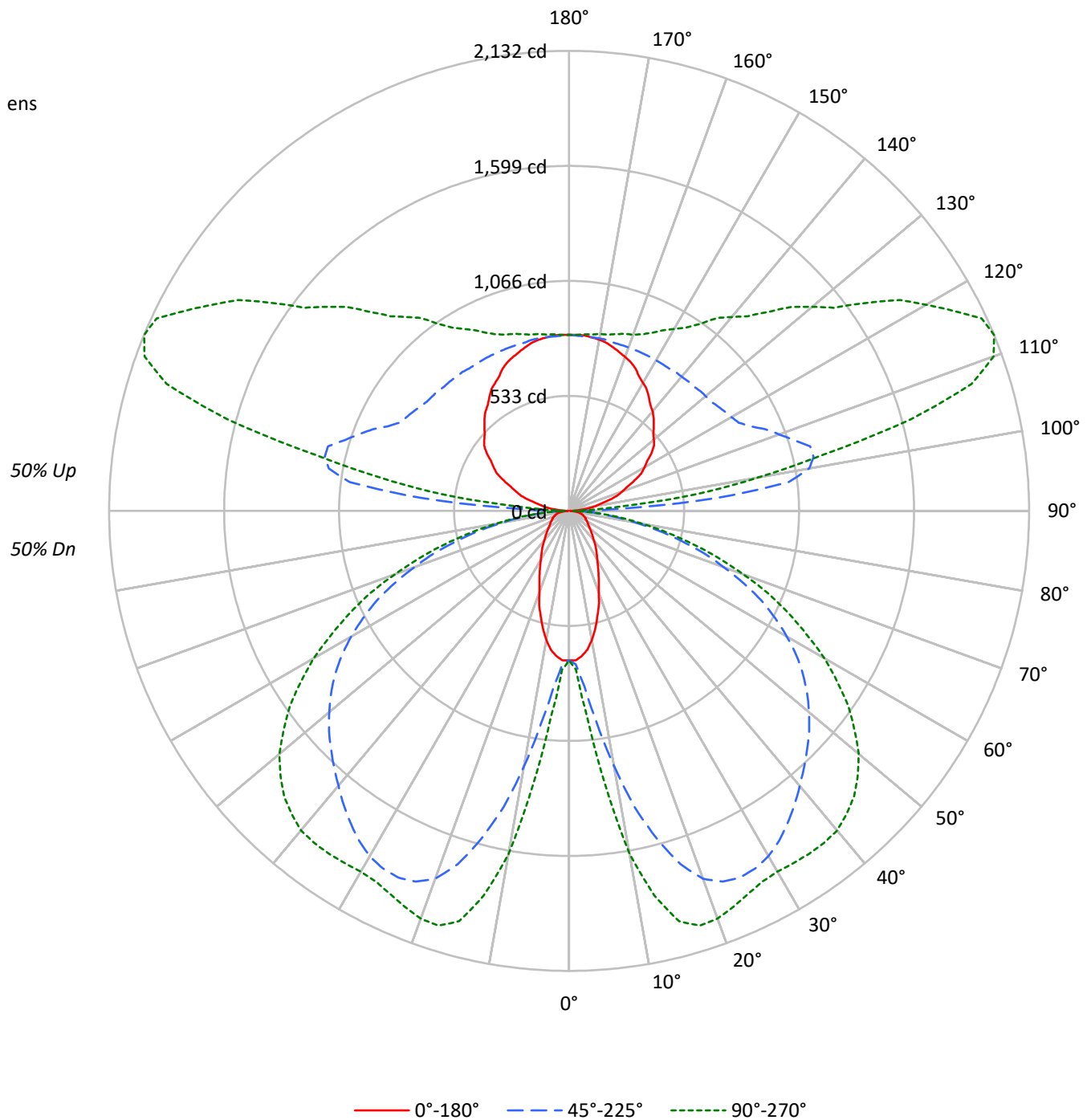
Test Method: LM-79-2019  
Report Number: P937761  
REPORT IS A COMBINATION OF REPORTS P933576 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10659.9 lumens  
Efficiency: N/A  
Efficacy: 103.3 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: General Diffuse  
  
Input Watts (W): 103.2  
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

TEST NUMBER: P937761  
CATALOG NUMBER: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P937761

CATALOG NUMBER: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

**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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10

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

	0°	45°	90°
0°	4289	4289	4289
5°	4189	4956	5766
10°	3798	7223	9558
15°	3227	9434	11541
20°	2626	10930	11762
25°	2190	11435	11523
30°	1846	11504	11502
35°	1631	11310	11799
40°	1421	11059	12106
45°	1286	10874	12153
50°	1178	10707	11952
55°	1127	10463	11423
60°	1152	9999	10586
65°	1198	9296	9437
70°	1273	8102	7973
75°	1404	6599	6221
80°	1523	4571	4192
85°	1330	2422	2146

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12153 cd/sqm



TEST NUMBER: P937761

CATALOG NUMBER: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.7	0.8
10°-20°	397.5	3.7
20°-30°	695.3	6.5
30°-40°	895.0	8.4
40°-50°	999.7	9.4
50°-60°	957.5	9.0
60°-70°	758.8	7.1
70°-80°	446.2	4.2
80°-90°	127.1	1.2
90°-100°	398.0	3.7
100°-110°	1046.4	9.8
110°-120°	1085.0	10.2
120°-130°	870.3	8.2
130°-140°	682.9	6.4
140°-150°	524.1	4.9
150°-160°	377.5	3.5
160°-170°	231.0	2.2
170°-180°	78.0	0.7
0°-30°	1182.5	11.1
0°-40°	2077.5	19.5
0°-60°	4034.8	37.8
0°-90°	5366.9	50.3
90°-120°	2529.3	23.7
90°-150°	4606.6	43.2
90°-180°	5293.0	49.7
0°-180°	10659.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	693	693	693	693	693	
5°	676	725	816	923	956	62
15°	506	934	1574	1908	1969	141
25°	323	1059	1875	1958	1960	149
35°	218	1012	1766	1866	1940	136
45°	149	807	1561	1788	1868	116
55°	107	513	1324	1538	1581	98
65°	85	272	983	1106	1121	84
75°	62	167	540	593	595	65
85°	22	51	134	147	149	24
90°	5	15	42	21	21	6
95°	53	206	686	353	241	58
105°	188	286	1157	1756	1638	200
115°	335	407	927	1848	2110	331
125°	466	522	843	1424	1680	414
135°	555	611	816	1150	1304	429
145°	644	685	806	981	1058	403
155°	728	748	806	885	911	334
165°	785	796	806	838	848	222
175°	816	816	812	822	822	78
180°	816	816	816	816	816	



TEST NUMBER: P937761

CATALOG NUMBER: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	693.3	693.3	693.3	693.3	693.3	693.3	693.3	693.3	693.3	693.3	693.3
2.5°	693.3	693.3	697.8	700.0	704.5	706.8	711.2	715.6	729.0	731.3	735.8
5°	675.5	684.5	713.4	724.6	755.8	798.1	815.9	844.9	905.2	923.0	934.2
7.5°	648.8	668.8	740.1	758.0	836.1	947.5	994.3	1056.8	1152.6	1199.4	1237.4
10°	606.4	648.8	775.8	818.2	945.3	1114.7	1201.7	1288.6	1433.6	1498.2	1522.7
12.5°	559.6	628.7	813.7	871.7	1054.5	1302.0	1406.8	1502.6	1667.6	1754.6	1767.9
15°	506.1	599.7	849.4	934.2	1170.4	1458.1	1574.0	1692.1	1846.0	1908.4	1924.0
17.5°	459.3	577.4	882.9	972.0	1259.7	1598.5	1716.6	1814.7	1939.6	1982.0	1993.1
20°	401.3	541.7	905.2	1021.1	1353.3	1701.1	1814.7	1890.5	1975.3	2002.0	2006.5
22.5°	359.0	503.9	918.5	1038.9	1415.7	1763.5	1859.4	1919.5	1977.5	1986.5	1988.6
25°	323.3	461.5	916.3	1059.0	1469.2	1801.4	1875.0	1919.5	1953.0	1957.5	1957.5
27.5°	289.8	414.6	907.4	1063.4	1509.4	1810.3	1868.2	1899.5	1915.0	1924.0	1924.0
30°	260.9	370.1	885.1	1054.5	1527.2	1801.4	1848.2	1863.8	1879.4	1892.8	1899.5
32.5°	238.5	327.7	851.6	1036.7	1529.4	1779.1	1812.5	1821.4	1843.7	1875.0	1886.1
35°	218.5	285.4	813.7	1012.2	1516.0	1743.4	1765.7	1774.6	1819.2	1866.0	1881.7
37.5°	198.4	254.2	764.7	969.8	1495.9	1701.1	1716.6	1732.3	1801.4	1857.1	1875.0
40°	178.4	227.4	706.8	923.0	1464.7	1649.8	1663.2	1687.7	1779.1	1843.7	1861.6
42.5°	162.7	205.1	644.3	873.9	1424.6	1591.8	1611.9	1647.5	1752.3	1821.4	1841.5
45°	149.4	182.8	577.4	807.1	1373.3	1531.6	1560.6	1609.7	1721.1	1788.0	1805.9
47.5°	136.0	167.2	508.3	737.9	1317.6	1471.4	1509.4	1565.0	1678.8	1743.4	1759.1
50°	124.8	151.6	439.2	664.3	1257.4	1406.8	1451.4	1509.4	1625.3	1685.5	1705.5
52.5°	115.9	138.2	374.5	590.8	1188.3	1339.8	1391.1	1451.4	1560.6	1618.5	1632.0
55°	107.0	127.1	318.8	512.8	1116.9	1268.5	1324.3	1382.3	1489.2	1538.3	1547.2
57.5°	102.6	118.1	272.0	439.2	1041.1	1188.3	1250.7	1304.2	1404.6	1442.4	1451.4
60°	95.8	111.5	236.4	376.8	958.7	1112.5	1166.0	1219.5	1304.2	1335.5	1342.1
62.5°	89.1	107.0	209.6	316.5	873.9	1023.3	1076.8	1125.9	1197.2	1219.5	1228.4
65°	84.8	102.6	189.5	272.0	787.0	929.7	983.2	1025.5	1083.5	1105.8	1110.3
67.5°	80.3	98.1	173.9	234.1	700.0	836.1	876.2	916.3	960.9	983.2	985.5
70°	73.6	93.6	160.6	207.4	610.9	729.0	762.5	804.8	840.5	851.6	858.4
72.5°	69.1	87.0	151.6	187.3	519.4	626.5	657.7	682.2	713.4	724.6	724.6
75°	62.4	78.0	142.7	167.2	425.8	512.8	539.5	564.0	588.5	593.0	586.4
77.5°	55.8	69.1	122.6	140.4	332.2	405.8	428.1	441.4	461.5	465.9	468.2
80°	46.8	60.2	95.8	109.3	240.7	298.7	314.3	325.5	343.3	343.3	347.8
82.5°	35.7	46.8	69.1	78.0	162.7	205.1	218.5	225.2	236.4	236.4	236.4
85°	22.3	29.0	44.6	51.3	98.1	124.8	133.8	136.0	144.9	147.1	147.1
87.5°	11.2	15.6	29.0	31.2	51.3	64.6	64.6	69.1	69.1	66.9	64.6
90°	5.4	9.8	14.2	15.4	24.2	35.8	41.6	37.0	27.8	20.8	20.8
92.5°	22.0	59.2	96.4	105.7	148.7	205.9	234.5	205.5	147.6	104.1	100.0
95°	52.6	120.8	189.0	206.0	365.9	579.0	685.5	611.7	464.1	353.4	340.9
97.5°	91.0	151.2	211.3	226.3	492.8	848.2	1025.9	979.2	885.9	815.9	792.1
100°	120.6	175.1	229.7	243.3	539.0	933.3	1130.5	1133.9	1140.7	1145.8	1117.4
102.5°	145.8	196.7	247.6	260.3	560.3	960.2	1160.1	1219.5	1338.4	1427.5	1403.2
105°	188.5	231.6	274.7	285.5	576.0	963.2	1156.8	1290.0	1556.4	1756.3	1743.2
107.5°	232.3	272.5	312.8	322.8	578.9	920.3	1091.0	1276.9	1648.5	1927.3	1930.4
110°	261.9	298.2	334.5	343.6	574.5	882.3	1036.2	1243.9	1659.5	1971.1	1984.7



TEST NUMBER: P937761

CATALOG NUMBER: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	291.0	325.6	360.2	368.8	574.7	849.1	986.3	1199.0	1624.2	1943.2	1964.1
115°	334.8	366.7	398.6	406.6	579.9	811.0	926.6	1131.4	1541.2	1848.4	1877.5
117.5°	378.1	407.1	436.1	443.3	590.7	787.2	885.5	1070.4	1440.1	1717.3	1749.6
120°	403.3	430.6	457.9	464.7	599.5	779.2	869.1	1038.0	1375.8	1629.2	1660.4
122.5°	428.0	455.5	483.1	489.9	612.1	775.0	856.5	1008.6	1312.8	1540.9	1571.8
125°	465.8	490.9	516.0	522.2	629.1	771.6	842.8	972.0	1230.4	1424.3	1452.7
127.5°	496.5	521.8	547.2	553.5	646.1	769.6	831.3	942.2	1164.1	1330.5	1354.5
130°	512.9	540.2	567.5	574.3	658.6	770.8	826.9	925.6	1123.2	1271.3	1293.5
132.5°	529.9	557.2	584.4	591.3	668.6	771.6	823.1	911.5	1088.3	1220.9	1240.8
135°	555.1	579.9	604.8	611.0	679.5	770.8	816.5	890.5	1038.6	1149.7	1166.8
137.5°	580.8	605.4	630.1	636.2	696.0	775.6	815.4	878.0	1003.2	1097.1	1111.1
140°	602.3	624.9	647.6	653.2	706.0	776.3	811.6	865.7	973.8	1054.8	1067.9
142.5°	618.7	639.7	660.6	665.8	714.4	779.1	811.6	859.1	954.0	1025.2	1036.5
145°	643.9	662.2	680.4	685.0	725.4	779.2	806.1	844.9	922.7	980.9	989.4
147.5°	669.1	686.8	704.6	709.1	741.4	784.5	806.1	836.7	897.8	943.6	950.7
150°	685.5	701.6	717.7	721.7	749.8	787.3	806.1	831.9	883.5	922.2	927.9
152.5°	702.6	714.8	726.9	730.0	755.3	789.2	806.1	828.2	872.2	905.3	909.6
155°	727.8	736.7	745.7	748.0	767.4	793.2	806.1	823.7	858.7	885.0	887.9
157.5°	746.4	755.2	763.9	766.1	779.4	797.2	806.1	819.7	847.0	867.5	869.5
160°	758.9	765.8	772.6	774.3	784.9	799.1	806.1	817.8	841.1	858.7	859.9
162.5°	771.6	776.7	781.8	783.1	790.7	801.0	806.1	815.9	835.7	850.5	851.5
165°	785.3	789.9	794.5	795.7	799.2	803.8	806.1	813.1	827.3	837.9	839.0
167.5°	797.8	800.0	802.2	802.8	805.7	809.6	811.6	816.2	825.4	832.4	832.9
170°	806.1	808.3	810.5	811.0	811.2	811.5	811.6	816.2	825.4	832.4	832.4
172.5°	810.5	810.9	811.5	811.6	811.6	811.6	811.6	815.2	822.5	828.0	827.5
175°	816.5	816.5	816.5	816.5	814.8	812.6	811.6	813.8	818.5	822.0	822.0
177.5°	816.5	816.5	816.5	816.5	815.2	813.6	812.7	814.5	818.1	820.9	820.3
180°	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5



TEST NUMBER: P937761

CATALOG NUMBER: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	693.3	693.3
2.5°	740.1	735.8
5°	952.0	956.5
7.5°	1282.0	1279.7
10°	1594.0	1614.1
12.5°	1821.4	1825.9
15°	1959.7	1968.6
17.5°	2013.2	2015.4
20°	2015.4	2011.0
22.5°	1990.8	1986.5
25°	1961.9	1959.7
27.5°	1935.2	1937.4
30°	1924.0	1930.7
32.5°	1924.0	1935.2
35°	1928.5	1939.6
37.5°	1926.2	1939.6
40°	1917.3	1932.9
42.5°	1892.8	1904.0
45°	1854.9	1868.2
47.5°	1805.9	1814.7
50°	1743.4	1752.3
52.5°	1665.3	1667.6
55°	1571.7	1580.7
57.5°	1471.4	1473.6
60°	1360.0	1366.6
62.5°	1241.8	1241.8
65°	1116.9	1121.4
67.5°	987.6	998.8
70°	856.1	858.4
72.5°	726.8	726.8
75°	593.0	595.2
77.5°	465.9	465.9
80°	345.5	347.8
82.5°	238.5	243.0
85°	149.4	149.4
87.5°	69.1	62.4
90°	20.8	20.8
92.5°	83.4	66.8
95°	290.7	240.6
97.5°	696.6	601.1
100°	1003.6	889.9
102.5°	1305.7	1208.3
105°	1690.8	1638.5
107.5°	1943.2	1955.8
110°	2039.3	2093.9





TEST NUMBER: P937761

CATALOG NUMBER: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2047.8	2131.6
115°	1993.6	2109.8
117.5°	1878.4	2007.3
120°	1785.7	1910.8
122.5°	1695.3	1818.8
125°	1566.4	1680.1
127.5°	1450.5	1546.4
130°	1382.2	1470.8
132.5°	1320.2	1399.6
135°	1235.2	1303.7
137.5°	1167.1	1223.1
140°	1120.4	1172.7
142.5°	1081.6	1126.7
145°	1023.6	1057.7
147.5°	979.0	1007.2
150°	950.8	973.8
152.5°	926.9	944.2
155°	899.3	910.7
157.5°	877.5	885.5
160°	864.5	869.1
162.5°	855.9	860.3
165°	843.7	848.3
167.5°	834.8	836.8
170°	832.4	832.4
172.5°	825.9	824.2
175°	822.0	822.0
177.5°	818.4	816.5
180°	816.5	816.5



TEST NUMBER: P937761

CATALOG NUMBER: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-6-3000K

**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	6.09	6.99	7.04	7.96	9.23	19.26	20.16	20.20	21.13	22.39
	3H	6.80	7.61	7.76	8.59	9.87	21.09	21.91	22.05	22.88	24.17
	4H	7.10	7.87	8.07	8.85	10.14	21.74	22.51	22.71	23.49	24.78
	6H	7.35	8.06	8.34	9.05	10.36	22.17	22.88	23.15	23.86	25.17
	8H	7.42	8.10	8.41	9.10	10.41	22.29	22.96	23.28	23.97	25.27
	12H	7.44	8.09	8.44	9.08	10.41	22.35	23.00	23.35	23.99	25.32
4H	2H	13.30	14.07	14.28	15.05	16.35	19.54	20.31	20.51	21.29	22.58
	3H	14.88	15.52	15.86	16.53	17.84	21.58	22.23	22.57	23.24	24.54
	4H	14.97	15.56	15.97	16.57	17.90	22.35	22.94	23.34	23.94	25.27
	6H	14.99	15.50	15.99	16.52	17.85	22.88	23.39	23.89	24.42	25.75
	8H	14.96	15.44	15.97	16.46	17.81	23.04	23.52	24.05	24.54	25.89
	12H	14.92	15.35	15.95	16.39	17.74	23.14	23.57	24.17	24.60	25.95
8H	4H	16.42	16.89	17.43	17.91	19.26	22.41	22.89	23.42	23.91	25.25
	6H	16.66	17.06	17.70	18.12	19.46	23.04	23.43	24.07	24.49	25.84
	8H	16.68	17.03	17.72	18.08	19.44	23.26	23.60	24.30	24.65	26.01
	12H	16.65	16.96	17.70	18.00	19.40	23.40	23.71	24.45	24.75	26.15
12H	4H	16.56	16.99	17.59	18.03	19.38	22.37	22.80	23.39	23.83	25.18
	6H	16.92	17.27	17.96	18.32	19.68	23.02	23.37	24.06	24.42	25.78
	8H	16.99	17.30	18.04	18.34	19.74	23.25	23.56	24.30	24.60	26.00