

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: P937894

Luminaire Tested: SQ4-FB-125U-050D-B2750-1D-UNV-W2A-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937894
REPORT IS A COMBINATION OF REPORTS P933613 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-050D-B2750-1D-UNV-W2A-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

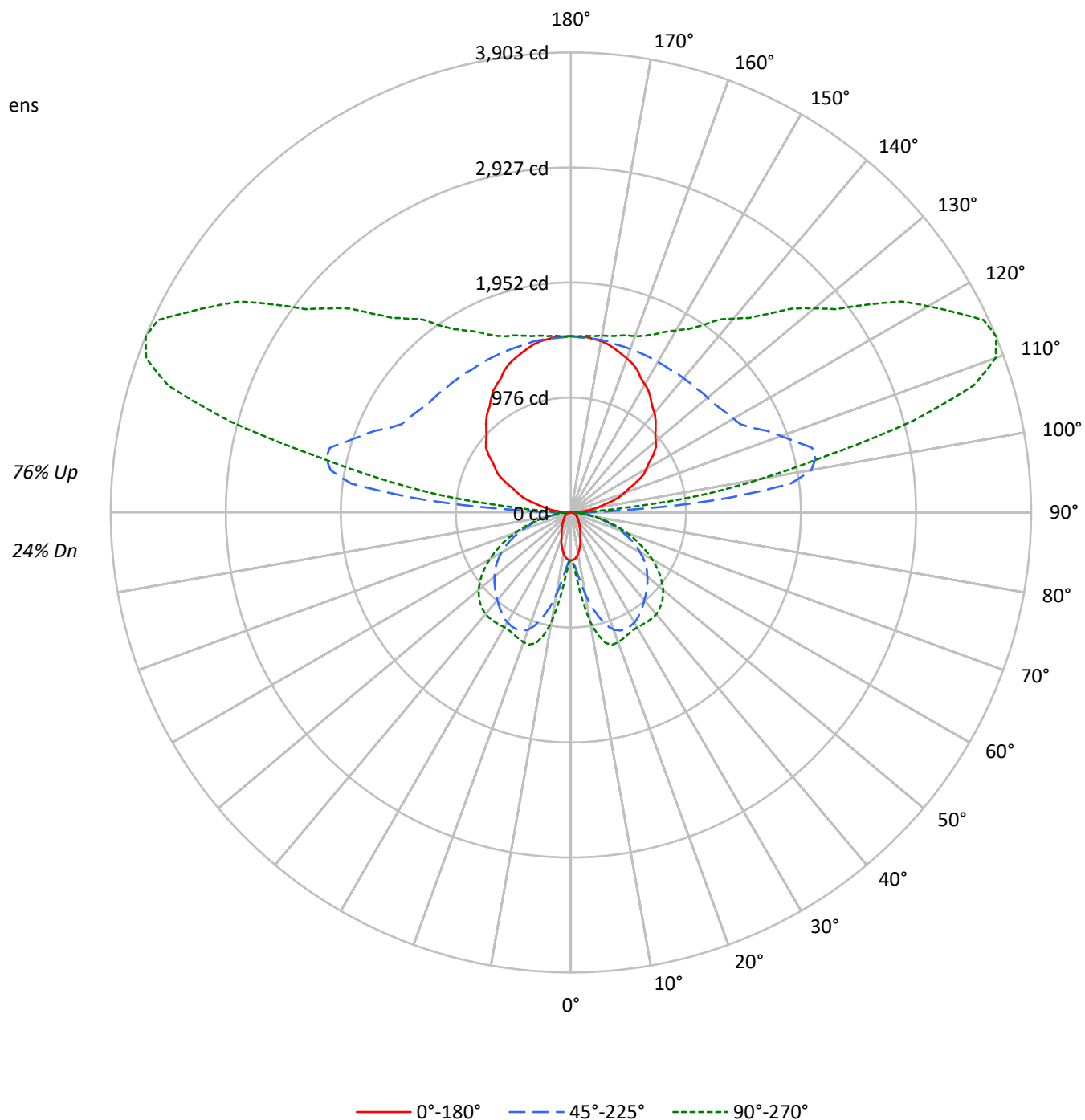
Lumens per Lamp: N/A
Luminaire Lumens: 12824.7 lumens
Efficiency: N/A
Efficacy: 134.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 95.2
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

TEST NUMBER: P937894

CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-W2A-W-8-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1875	1875	1875
5°	1832	2168	2521
10°	1662	3160	4179
15°	1413	4128	5046
20°	1150	4784	5143
25°	959	5006	5039
30°	808	5037	5029
35°	715	4954	5159
40°	623	4845	5294
45°	564	4765	5314
50°	518	4694	5226
55°	496	4589	4994
60°	508	4388	4628
65°	528	4081	4126
70°	563	3559	3486
75°	623	2902	2720
80°	681	2012	1832
85°	606	1068	938

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5314 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	0.4
10°-20°	231.7	1.8
20°-30°	405.3	3.2
30°-40°	521.8	4.1
40°-50°	582.8	4.5
50°-60°	558.2	4.4
60°-70°	442.4	3.4
70°-80°	260.1	2.0
80°-90°	78.0	0.6
90°-100°	728.8	5.7
100°-110°	1916.0	14.9
110°-120°	1986.7	15.5
120°-130°	1593.6	12.4
130°-140°	1250.4	9.7
140°-150°	959.7	7.5
150°-160°	691.2	5.4
160°-170°	422.9	3.3
170°-180°	142.9	1.1
0°-30°	689.4	5.4
0°-40°	1211.2	9.4
0°-60°	2352.2	18.3
0°-90°	3132.7	24.4
90°-120°	4631.5	36.1
90°-150°	8435.1	65.8
90°-180°	9692.0	75.6
0°-180°	12824.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	394	422	476	538	558	36
15°	295	545	918	1112	1148	82
25°	188	617	1093	1141	1142	87
35°	127	590	1029	1088	1131	80
45°	87	470	910	1042	1089	67
55°	62	299	772	897	922	57
65°	49	158	573	645	654	49
75°	36	98	314	346	347	38
85°	13	30	78	86	87	14
90°	10	28	76	38	38	9
95°	96	377	1255	647	440	107
105°	345	523	2118	3216	3000	366
115°	613	744	1697	3384	3863	606
125°	853	956	1543	2608	3076	757
135°	1016	1119	1495	2105	2387	786
145°	1179	1254	1476	1796	1936	739
155°	1333	1370	1476	1621	1668	612
165°	1438	1457	1476	1534	1553	406
175°	1495	1495	1486	1505	1505	142
180°	1495	1495	1495	1495	1495	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2
2.5°	404.2	404.2	406.8	408.1	410.7	412.0	414.6	417.3	425.0	426.3	428.9
5°	393.8	399.0	415.9	422.4	440.6	465.3	475.7	492.5	527.7	538.1	544.6
7.5°	378.2	389.9	431.5	441.9	487.4	552.3	579.7	616.1	671.9	699.2	721.3
10°	353.5	378.2	452.3	477.0	551.1	649.8	700.6	751.3	835.7	873.4	887.7
12.5°	326.3	366.5	474.4	508.1	614.7	759.0	820.2	876.0	972.2	1022.9	1030.6
15°	295.1	349.6	495.2	544.6	682.4	850.0	917.6	986.4	1076.2	1112.5	1121.6
17.5°	267.7	336.6	514.7	566.7	734.3	931.9	1000.8	1058.0	1130.7	1155.4	1161.9
20°	233.9	315.8	527.7	595.3	789.0	991.7	1058.0	1102.1	1151.6	1167.2	1169.8
22.5°	209.2	293.7	535.5	605.6	825.3	1028.1	1083.9	1119.1	1152.8	1158.1	1159.3
25°	188.5	269.0	534.2	617.3	856.5	1050.2	1093.0	1119.1	1138.6	1141.2	1141.2
27.5°	169.0	241.8	529.0	620.0	879.9	1055.3	1089.2	1107.4	1116.5	1121.6	1121.6
30°	152.0	215.8	516.0	614.7	890.3	1050.2	1077.4	1086.5	1095.6	1103.5	1107.4
32.5°	139.1	191.1	496.5	604.4	891.6	1037.1	1056.7	1061.8	1074.8	1093.0	1099.5
35°	127.3	166.4	474.4	590.0	883.8	1016.4	1029.4	1034.6	1060.6	1087.9	1096.9
37.5°	115.7	148.2	445.8	565.4	872.1	991.7	1000.8	1009.9	1050.2	1082.7	1093.0
40°	104.0	132.6	412.0	538.1	853.9	961.8	969.6	983.9	1037.1	1074.8	1085.3
42.5°	94.9	119.6	375.6	509.5	830.5	928.0	939.7	960.5	1021.6	1061.8	1073.6
45°	87.1	106.6	336.6	470.4	800.6	892.9	909.8	938.4	1003.4	1042.4	1052.7
47.5°	79.3	97.5	296.3	430.2	768.1	857.9	879.9	912.4	978.7	1016.4	1025.5
50°	72.8	88.4	256.0	387.3	733.0	820.2	846.1	879.9	947.5	982.6	994.3
52.5°	67.5	80.6	218.3	344.4	692.7	781.1	811.1	846.1	909.8	943.6	951.4
55°	62.4	74.1	185.9	298.9	651.2	739.5	772.0	805.8	868.2	896.8	902.0
57.5°	59.8	68.9	158.5	256.0	607.0	692.7	729.2	760.4	818.8	840.9	846.1
60°	55.9	65.0	137.8	219.7	558.9	648.6	679.8	711.0	760.4	778.5	782.5
62.5°	52.0	62.4	122.2	184.6	509.5	596.6	627.7	656.4	698.0	711.0	716.2
65°	49.4	59.8	110.5	158.5	458.8	542.0	573.2	597.9	631.7	644.7	647.3
67.5°	46.8	57.2	101.4	136.4	408.1	487.4	510.8	534.2	560.2	573.2	574.4
70°	42.9	54.6	93.6	120.8	356.1	425.0	444.5	469.2	490.0	496.5	500.4
72.5°	40.3	50.7	88.4	109.2	302.8	365.2	383.4	397.7	415.9	422.4	422.4
75°	36.4	45.4	83.1	97.5	248.3	298.9	314.5	328.8	343.1	345.7	341.9
77.5°	32.5	40.3	71.5	81.9	193.7	236.5	249.5	257.4	269.0	271.6	273.0
80°	27.3	35.1	55.9	63.7	140.4	174.1	183.2	189.7	200.2	200.2	202.7
82.5°	20.8	27.3	40.3	45.4	94.9	119.6	127.3	131.3	137.8	137.8	137.8
85°	13.0	16.9	26.0	29.8	57.2	72.8	78.0	79.3	84.5	85.8	85.8
87.5°	6.5	9.1	16.9	18.2	29.8	37.7	37.7	40.3	40.3	39.0	37.7
90°	10.1	18.1	26.1	28.1	44.2	65.6	76.3	67.7	50.8	38.1	38.1
92.5°	40.1	108.3	176.6	193.7	272.3	377.0	429.5	376.4	270.3	190.6	183.0
95°	96.3	221.2	346.1	377.3	670.0	1060.2	1255.2	1120.2	849.9	647.2	624.2
97.5°	166.6	276.7	386.9	414.4	902.4	1553.1	1878.4	1793.0	1622.2	1494.1	1450.4
100°	220.7	320.6	420.5	445.5	987.0	1709.0	2070.1	2076.3	2088.8	2098.2	2046.1
102.5°	266.9	360.1	453.3	476.7	1025.9	1758.2	2124.2	2233.1	2450.7	2613.9	2569.3
105°	345.2	424.1	503.0	522.8	1054.6	1763.7	2118.2	2362.1	2850.0	3215.9	3192.0
107.5°	425.5	499.0	572.6	591.0	1059.9	1685.2	1997.8	2338.1	3018.6	3529.0	3534.8
110°	479.7	546.1	612.6	629.2	1051.9	1615.6	1897.5	2277.9	3038.7	3609.2	3634.2

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	532.9	596.1	659.5	675.3	1052.2	1554.9	1806.1	2195.5	2974.1	3558.1	3596.4
115°	613.1	671.5	729.9	744.5	1061.9	1485.2	1696.8	2071.8	2821.9	3384.5	3437.7
117.5°	692.4	745.5	798.5	811.7	1081.7	1441.6	1621.5	1960.0	2636.9	3144.7	3203.7
120°	738.5	788.5	838.4	850.9	1097.7	1426.9	1591.4	1900.7	2519.2	2983.2	3040.4
122.5°	783.6	834.0	884.4	897.0	1120.7	1419.1	1568.3	1846.8	2403.9	2821.6	2878.1
125°	852.9	898.8	944.8	956.2	1151.9	1412.8	1543.2	1779.9	2253.0	2607.9	2659.9
127.5°	909.1	955.5	1001.8	1013.5	1183.1	1409.1	1522.2	1725.3	2131.6	2436.3	2480.2
130°	939.2	989.2	1039.1	1051.6	1205.7	1411.3	1514.2	1695.0	2056.7	2327.9	2368.5
132.5°	970.3	1020.3	1070.2	1082.7	1224.1	1412.8	1507.1	1669.0	1992.7	2235.6	2271.9
135°	1016.5	1061.9	1107.5	1118.8	1244.2	1411.4	1495.1	1630.6	1901.8	2105.2	2136.5
137.5°	1063.6	1108.6	1153.7	1164.9	1274.3	1420.2	1493.0	1607.7	1836.9	2008.8	2034.5
140°	1102.7	1144.2	1185.7	1196.0	1292.7	1421.6	1486.1	1585.1	1783.1	1931.6	1955.5
142.5°	1132.9	1171.2	1209.5	1219.1	1308.1	1426.8	1486.1	1573.0	1746.9	1877.3	1898.0
145°	1179.0	1212.4	1245.9	1254.3	1328.2	1426.8	1476.0	1547.1	1689.5	1796.1	1811.7
147.5°	1225.2	1257.8	1290.3	1298.5	1357.7	1436.5	1476.0	1532.0	1643.9	1727.9	1740.8
150°	1255.2	1284.7	1314.2	1321.5	1373.0	1441.7	1476.0	1523.3	1617.8	1688.8	1699.2
152.5°	1286.3	1308.6	1330.9	1336.5	1383.1	1445.0	1476.0	1516.4	1597.1	1657.7	1665.6
155°	1332.6	1349.0	1365.5	1369.7	1405.1	1452.3	1476.0	1508.2	1572.4	1620.6	1625.8
157.5°	1366.7	1382.7	1398.8	1402.7	1427.1	1459.7	1476.0	1501.0	1550.9	1588.4	1592.1
160°	1389.7	1402.2	1414.7	1417.8	1437.2	1463.1	1476.0	1497.4	1540.2	1572.3	1574.4
162.5°	1412.8	1422.1	1431.5	1433.8	1447.9	1466.6	1476.0	1494.0	1530.1	1557.3	1559.3
165°	1437.9	1446.4	1454.9	1457.0	1463.3	1471.7	1476.0	1489.0	1514.8	1534.2	1536.3
167.5°	1461.0	1464.9	1469.0	1470.0	1475.3	1482.5	1486.1	1494.5	1511.4	1524.1	1525.0
170°	1476.0	1480.1	1484.1	1485.1	1485.4	1485.9	1486.1	1494.5	1511.4	1524.1	1524.1
172.5°	1484.0	1484.9	1485.9	1486.1	1486.1	1486.1	1486.1	1492.7	1506.1	1516.2	1515.4
175°	1495.1	1495.1	1495.1	1495.1	1492.1	1488.1	1486.1	1490.3	1498.8	1505.1	1505.1
177.5°	1495.1	1495.1	1495.1	1495.1	1492.7	1489.6	1488.1	1491.4	1498.1	1503.1	1502.2
180°	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1	1495.1

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	404.2	404.2
2.5°	431.5	428.9
5°	554.9	557.6
7.5°	747.3	746.0
10°	929.3	941.0
12.5°	1061.8	1064.4
15°	1142.5	1147.7
17.5°	1173.7	1174.9
20°	1174.9	1172.3
22.5°	1160.7	1158.1
25°	1143.7	1142.5
27.5°	1128.1	1129.5
30°	1121.6	1125.6
32.5°	1121.6	1128.1
35°	1124.2	1130.7
37.5°	1123.0	1130.7
40°	1117.7	1126.9
42.5°	1103.5	1110.0
45°	1081.4	1089.2
47.5°	1052.7	1058.0
50°	1016.4	1021.6
52.5°	970.8	972.2
55°	916.3	921.5
57.5°	857.9	859.1
60°	792.8	796.7
62.5°	723.9	723.9
65°	651.2	653.8
67.5°	575.8	582.3
70°	499.1	500.4
72.5°	423.7	423.7
75°	345.7	347.0
77.5°	271.6	271.6
80°	201.5	202.7
82.5°	139.1	141.7
85°	87.1	87.1
87.5°	40.3	36.4
90°	38.1	38.1
92.5°	152.7	122.4
95°	532.4	440.5
97.5°	1275.6	1100.8
100°	1837.8	1629.6
102.5°	2390.9	2212.5
105°	3096.1	3000.2
107.5°	3558.0	3581.1
110°	3734.1	3834.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3749.8	3903.2
115°	3650.4	3863.1
117.5°	3439.6	3675.5
120°	3269.7	3498.9
122.5°	3104.3	3330.4
125°	2868.2	3076.5
127.5°	2655.9	2831.6
130°	2530.8	2693.1
132.5°	2417.4	2562.7
135°	2261.8	2387.1
137.5°	2137.0	2239.6
140°	2051.5	2147.3
142.5°	1980.4	2063.0
145°	1874.1	1936.5
147.5°	1792.6	1844.3
150°	1741.2	1783.1
152.5°	1697.2	1728.9
155°	1646.7	1667.6
157.5°	1606.8	1621.5
160°	1582.9	1591.4
162.5°	1567.4	1575.4
165°	1544.8	1553.3
167.5°	1528.6	1532.2
170°	1524.1	1524.1
172.5°	1512.2	1509.1
175°	1505.1	1505.1
177.5°	1498.7	1495.1
180°	1495.1	1495.1

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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	0.17	0.86	1.32	2.00	3.59	13.35	14.04	14.50	15.18	16.77
	3H	0.87	1.48	2.02	2.63	4.24	15.18	15.80	16.33	16.94	18.55
	4H	1.16	1.74	2.32	2.89	4.50	15.82	16.40	16.98	17.55	19.16
	6H	1.40	1.94	2.57	3.08	4.71	16.24	16.78	17.41	17.92	19.55
	8H	1.46	1.97	2.63	3.14	4.75	16.35	16.87	17.53	18.03	19.65
	12H	1.47	1.96	2.65	3.11	4.75	16.42	16.90	17.59	18.06	19.70
4H	2H	7.37	7.95	8.54	9.10	10.71	13.61	14.19	14.78	15.34	16.95
	3H	8.92	9.41	10.09	10.58	12.21	15.64	16.13	16.81	17.30	18.92
	4H	9.01	9.46	10.18	10.62	12.26	16.39	16.85	17.57	18.00	19.65
	6H	9.01	9.39	10.19	10.58	12.21	16.92	17.31	18.10	18.49	20.12
	8H	8.98	9.34	10.16	10.51	12.16	17.08	17.44	18.26	18.61	20.27
	12H	8.93	9.25	10.12	10.44	12.09	17.17	17.49	18.36	18.68	20.33
8H	4H	10.44	10.80	11.62	11.97	13.62	16.44	16.80	17.62	17.97	19.62
	6H	10.67	10.97	11.87	12.18	13.83	17.06	17.36	18.26	18.57	20.22
	8H	10.69	10.95	11.89	12.14	13.81	17.28	17.54	18.48	18.73	20.40
	12H	10.65	10.87	11.85	12.06	13.76	17.41	17.64	18.62	18.83	20.53
12H	4H	10.57	10.90	11.77	12.08	13.74	16.38	16.71	17.58	17.89	19.55
	6H	10.93	11.19	12.13	12.38	14.05	17.04	17.30	18.25	18.49	20.16
	8H	10.99	11.22	12.20	12.41	14.10	17.26	17.49	18.47	18.68	20.38

END OF REPORT