

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: P855224

Luminaire Tested: SQ2-FB-150U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855224
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-150U-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

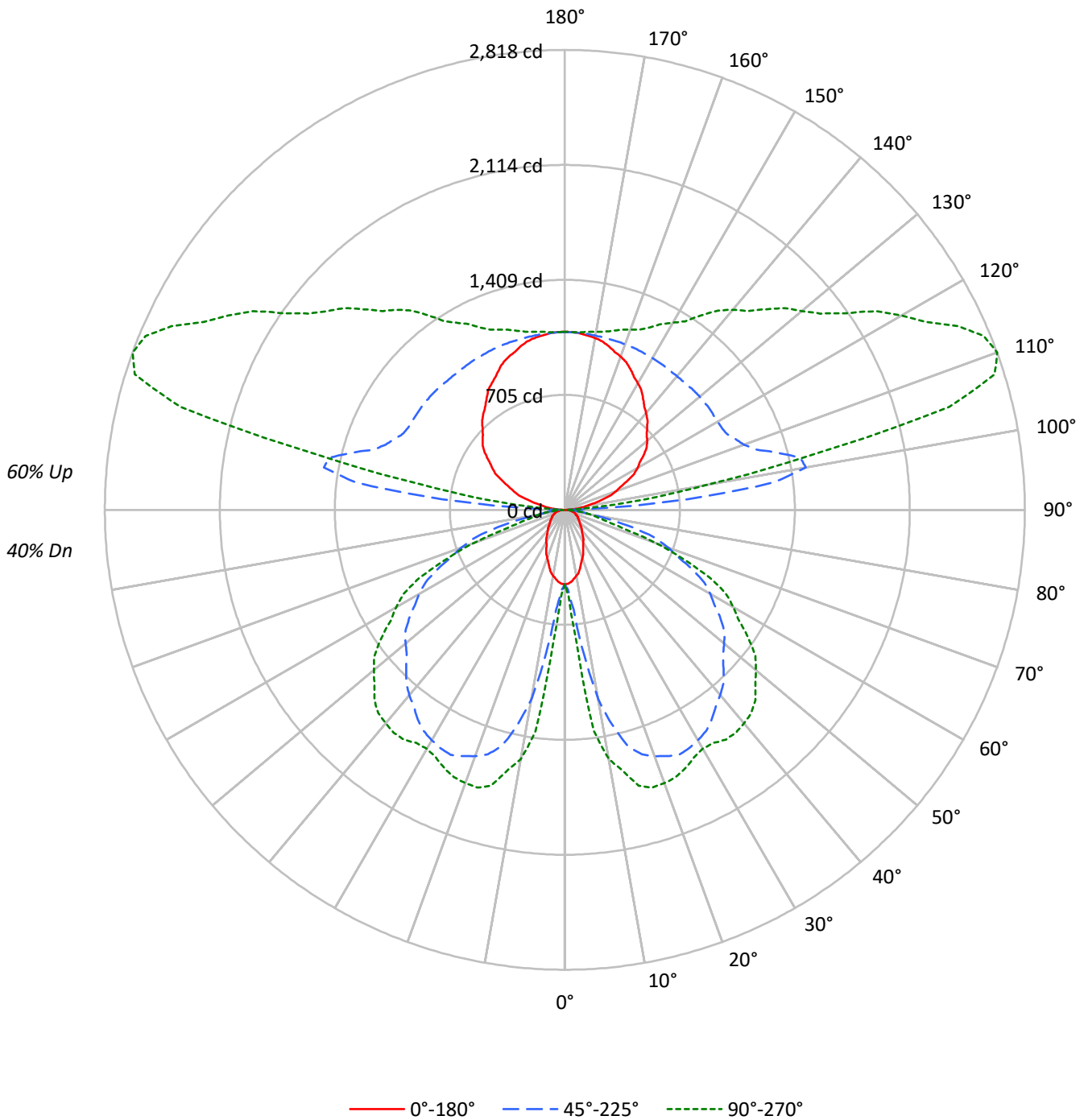
Lumens per Lamp: N/A
Luminaire Lumens: 11241.2 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 94.2
Input Voltage (V): 120
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: P855224

CATALOG NUMBER: SQ2-FB-150U-100D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855224

CATALOG NUMBER: SQ2-FB-150U-100D-835-UNV-STD-W-4

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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	91	87	84	87	83	80	77	68	66	64	54	53	51	41	40	39	34
2	87	79	73	68	79	72	67	62	59	55	52	47	45	42	36	34	33	28
3	79	69	62	56	71	63	57	52	52	47	43	41	38	35	32	29	27	23
4	72	61	53	47	65	56	49	43	46	41	36	36	33	30	28	25	23	19
5	66	54	46	40	59	49	42	37	41	35	31	32	28	25	25	22	20	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	55	43	35	30	50	40	32	27	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13	11
9	48	35	28	23	43	32	26	21	27	22	18	22	18	15	17	14	12	10
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7371	7371	7371
5°	7186	9961	13055
10°	6730	19289	25406
15°	6091	25097	29240
20°	5393	27606	30624
25°	4771	29523	31126
30°	4215	30404	31510
35°	3763	30934	33876
40°	3423	31228	35993
45°	3158	31376	37689
50°	2977	31976	38371
55°	2905	32808	38680
60°	2977	33244	38488
65°	3106	32791	37398
70°	3210	31704	28287
75°	3556	28478	15608
80°	3673	14691	14486
85°	3668	10170	6095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 39028 cd/sqm



TEST NUMBER: P855224

CATALOG NUMBER: SQ2-FB-150U-100D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.5	0.7
10°-20°	349.1	3.1
20°-30°	614.3	5.5
30°-40°	795.1	7.1
40°-50°	877.0	7.8
50°-60°	818.8	7.3
60°-70°	632.8	5.6
70°-80°	291.9	2.6
80°-90°	56.9	0.5
90°-100°	415.4	3.7
100°-110°	1360.2	12.1
110°-120°	1344.7	12.0
120°-130°	1099.2	9.8
130°-140°	897.0	8.0
140°-150°	698.1	6.2
150°-160°	502.7	4.5
160°-170°	307.5	2.7
170°-180°	103.9	0.9
0°-30°	1039.9	9.3
0°-40°	1835.1	16.3
0°-60°	3530.8	31.4
0°-90°	4512.5	40.1
90°-120°	3120.3	27.8
90°-150°	5814.7	51.7
90°-180°	6729.0	59.9
0°-180°	11241.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	443	508	615	750	806	41
15°	364	718	1501	1681	1749	102
25°	268	965	1657	1730	1747	123
35°	191	931	1569	1624	1719	120
45°	138	713	1374	1578	1651	107
55°	103	425	1166	1340	1374	93
65°	81	240	858	962	979	80
75°	57	147	456	246	250	59
85°	20	43	55	37	33	21
90°	1	3	9	8	9	4
95°	58	169	755	269	175	66
105°	236	337	1350	2565	2437	249
115°	426	509	1097	2267	2661	421
125°	593	661	1081	1788	2100	527
135°	714	789	1072	1542	1738	552
145°	835	896	1070	1326	1453	523
155°	951	983	1077	1186	1232	438
165°	1039	1048	1081	1123	1135	293
175°	1086	1086	1087	1095	1092	103
180°	1090	1090	1090	1090	1090	

TEST NUMBER: P855224

CATALOG NUMBER: SQ2-FB-150U-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	456.5	456.5	456.5	456.5	456.5
2.5°	453.0	471.9	493.4	518.2	528.5
5°	443.4	507.8	614.6	749.7	805.5
7.5°	426.3	557.1	893.8	1255.4	1367.0
10°	410.5	592.9	1176.5	1489.5	1549.6
12.5°	392.9	640.5	1353.8	1573.8	1635.7
15°	364.4	718.5	1501.4	1680.6	1749.3
17.5°	335.0	806.2	1569.8	1746.7	1784.1
20°	313.9	867.5	1606.7	1758.7	1782.3
22.5°	294.6	913.5	1633.0	1748.2	1773.5
25°	267.8	965.3	1657.2	1730.0	1747.2
27.5°	241.8	978.9	1646.7	1694.4	1711.2
30°	226.1	975.0	1630.8	1666.5	1690.1
32.5°	212.1	964.5	1608.0	1642.5	1693.6
35°	190.9	931.4	1569.4	1624.2	1718.7
37.5°	172.9	878.2	1518.5	1630.7	1721.7
40°	162.4	838.4	1481.6	1630.4	1707.7
42.5°	151.9	791.8	1439.5	1612.8	1690.1
45°	138.3	713.4	1374.1	1577.7	1650.6
47.5°	125.5	625.1	1313.4	1528.9	1582.1
50°	118.5	564.9	1273.0	1484.7	1527.6
52.5°	111.5	506.4	1232.7	1432.0	1471.5
55°	103.2	425.1	1165.5	1339.7	1374.1
57.5°	95.7	355.3	1089.1	1237.7	1265.7
60°	92.2	317.5	1029.5	1163.9	1191.9
62.5°	86.9	283.0	962.7	1086.6	1112.9
65°	81.3	240.0	858.3	961.8	978.9
67.5°	73.3	208.1	747.1	810.5	778.4
70°	68.0	192.5	671.6	691.4	599.2
72.5°	64.5	175.3	589.1	536.9	362.1
75°	57.0	147.2	456.5	245.9	250.2
77.5°	46.5	114.0	300.2	188.9	192.7
80°	39.5	93.1	158.0	153.7	155.8
82.5°	32.5	72.4	108.9	113.2	110.2
85°	19.8	43.3	54.9	37.2	32.9
87.5°	7.2	16.3	10.5	10.3	10.5
90°	1.1	3.3	8.9	7.9	8.9
92.5°	19.0	69.5	213.3	69.4	55.6
95°	58.3	169.0	755.2	269.0	174.8
97.5°	105.8	222.8	1295.6	783.8	485.8
100°	139.0	250.7	1499.1	1338.8	887.3
102.5°	176.5	285.7	1476.7	1972.6	1529.2
105°	236.4	337.2	1350.1	2565.1	2436.9
107.5°	295.4	387.8	1226.6	2620.5	2761.4
110°	333.8	423.7	1167.5	2556.1	2817.8



TEST NUMBER: P855224

CATALOG NUMBER: SQ2-FB-150U-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	370.6	457.9	1131.7	2443.8	2779.4
115°	425.7	509.0	1096.9	2266.6	2661.0
117.5°	479.4	557.1	1083.7	2092.4	2492.9
120°	514.2	587.7	1080.1	1990.9	2380.9
122.5°	545.7	617.3	1080.1	1903.3	2265.3
125°	592.7	660.7	1081.2	1787.5	2099.7
127.5°	632.6	701.9	1079.8	1702.0	1973.7
130°	657.7	727.8	1078.9	1650.4	1895.8
132.5°	680.1	752.0	1076.3	1605.9	1828.5
135°	713.7	789.3	1072.3	1541.7	1737.8
137.5°	749.2	824.1	1069.8	1474.7	1652.0
140°	774.2	846.5	1068.9	1432.3	1599.9
142.5°	799.3	867.2	1068.9	1387.2	1539.1
145°	834.7	896.1	1070.0	1326.1	1453.2
147.5°	871.9	923.0	1071.6	1273.0	1369.0
150°	895.3	940.2	1073.4	1242.1	1323.3
152.5°	918.6	958.2	1074.3	1216.8	1283.8
155°	951.3	983.0	1076.8	1186.4	1232.5
157.5°	980.6	1003.6	1079.2	1162.7	1195.9
160°	999.4	1018.0	1080.1	1149.1	1175.3
162.5°	1015.6	1030.7	1080.1	1138.1	1157.4
165°	1038.6	1048.5	1081.2	1122.9	1134.9
167.5°	1058.1	1063.0	1082.5	1111.2	1117.7
170°	1068.9	1071.1	1083.5	1104.8	1107.0
172.5°	1077.0	1078.2	1086.2	1100.3	1100.7
175°	1085.7	1085.7	1086.8	1094.7	1092.4
177.5°	1090.1	1089.3	1088.4	1093.6	1090.1
180°	1090.1	1090.1	1090.1	1090.1	1090.1



TEST NUMBER: P855224

CATALOG NUMBER: SQ2-FB-150U-100D-835-UNV-STD-W-4

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	13.03	13.83	14.06	14.87	16.27	21.76	22.56	22.80	23.61	25.01
	3H	13.75	14.47	14.79	15.52	16.94	23.38	24.10	24.42	25.15	26.57
	4H	14.05	14.73	15.10	15.78	17.21	23.56	24.24	24.61	25.29	26.72
	6H	14.26	14.89	15.33	15.94	17.39	23.64	24.27	24.70	25.32	26.77
	8H	14.32	14.91	15.39	15.99	17.42	23.64	24.24	24.71	25.31	26.75
	12H	14.34	14.91	15.42	15.98	17.44	23.61	24.18	24.69	25.25	26.71
4H	2H	17.42	18.10	18.48	19.15	20.58	22.20	22.88	23.26	23.93	25.36
	3H	18.34	18.91	19.41	19.99	21.44	24.02	24.58	25.09	25.66	27.11
	4H	18.62	19.14	19.70	20.22	21.68	24.25	24.77	25.33	25.84	27.31
	6H	18.75	19.20	19.84	20.29	21.75	24.39	24.84	25.48	25.94	27.39
	8H	18.77	19.19	19.86	20.27	21.75	24.42	24.83	25.50	25.92	27.40
	12H	18.76	19.14	19.86	20.24	21.72	24.39	24.76	25.49	25.86	27.34
8H	4H	19.79	20.21	20.88	21.30	22.77	24.37	24.78	25.45	25.87	27.34
	6H	20.03	20.37	21.14	21.50	22.97	24.57	24.91	25.68	26.04	27.51
	8H	20.10	20.40	21.21	21.51	23.00	24.63	24.93	25.74	26.04	27.53
	12H	20.12	20.39	21.24	21.49	23.02	24.62	24.88	25.74	25.99	27.52
12H	4H	19.81	20.18	20.91	21.29	22.77	24.31	24.69	25.42	25.79	27.27
	6H	20.12	20.42	21.24	21.53	23.03	24.55	24.85	25.66	25.96	27.45
	8H	20.22	20.49	21.34	21.59	23.12	24.61	24.88	25.73	25.98	27.51