

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: P854977

Luminaire Tested: SQ2-FB-150U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854977
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-075D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

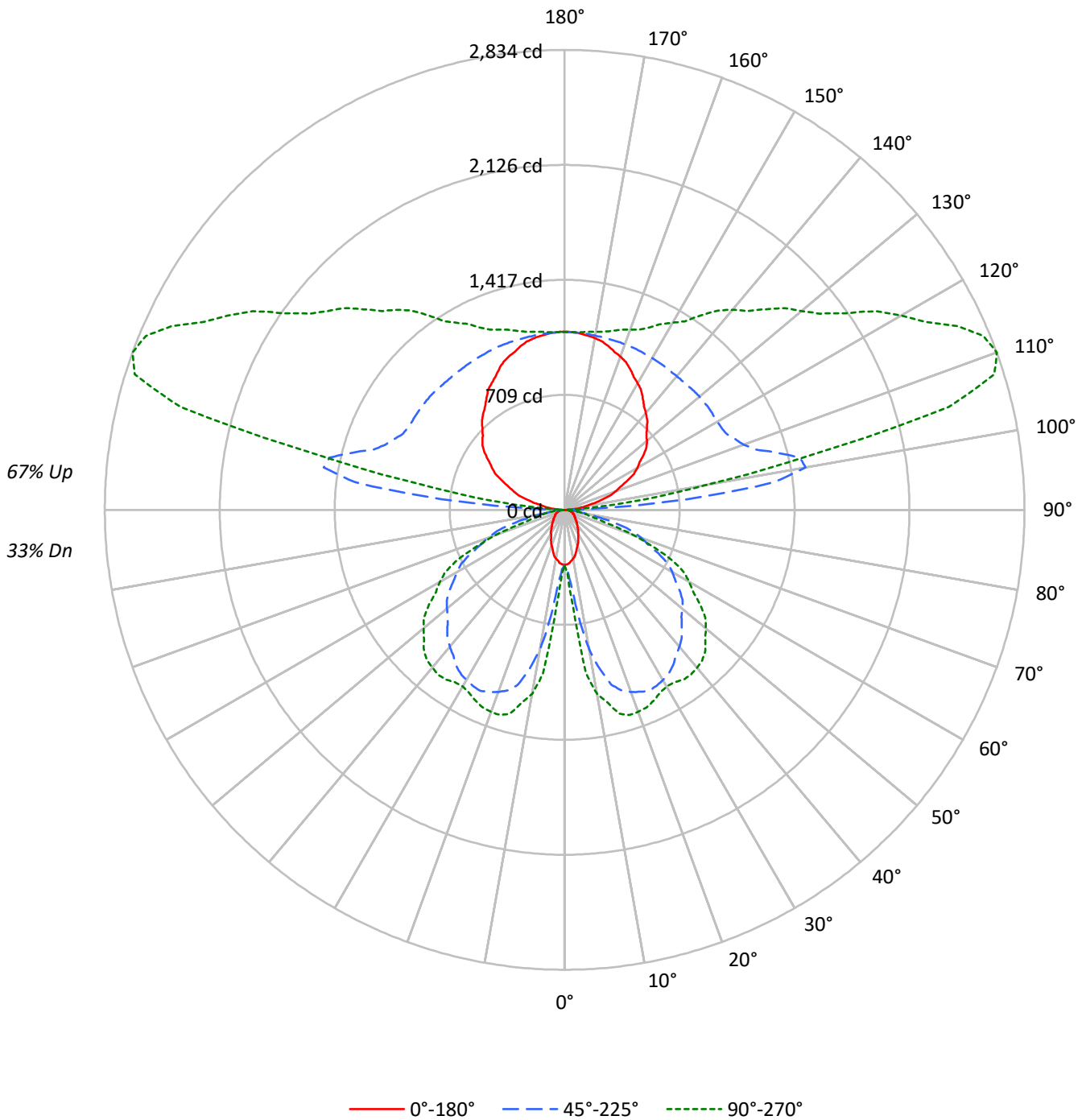
Lumens per Lamp: N/A
Luminaire Lumens: 10120.3 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 83.3
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: P854977

CATALOG NUMBER: SQ2-FB-150U-075D-830-UNV-STD-W-4

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	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	82	84	81	78	75	65	62	60	50	48	47	36	35	34	28
2	85	78	72	67	77	70	65	61	56	53	50	43	41	39	31	30	28	23
3	78	68	61	55	70	62	55	50	49	45	41	38	35	32	27	25	24	19
4	71	60	52	46	63	54	48	42	43	39	35	33	30	27	24	22	20	16
5	65	53	45	39	58	48	41	36	39	33	30	30	26	23	21	19	17	14
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	42	35	29	49	39	32	27	31	26	22	24	20	17	17	15	13	10
8	50	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	22	18	23	19	15	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5478	5478	5478
5°	5340	7402	9702
10°	5000	14332	18880
15°	4527	18648	21728
20°	4009	20515	22756
25°	3545	21937	23129
30°	3132	22592	23415
35°	2797	22984	25172
40°	2546	23204	26744
45°	2347	23315	28005
50°	2213	23762	28514
55°	2159	24380	28743
60°	2212	24703	28598
65°	2308	24363	27794
70°	2384	23561	21017
75°	2645	21166	11603
80°	2734	10925	10767
85°	2723	7558	4520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 29000 cd/sqm



TEST NUMBER: P854977

CATALOG NUMBER: SQ2-FB-150U-075D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.8	0.6
10°-20°	259.5	2.6
20°-30°	456.5	4.5
30°-40°	590.9	5.8
40°-50°	651.7	6.4
50°-60°	608.5	6.0
60°-70°	470.3	4.6
70°-80°	216.9	2.1
80°-90°	42.6	0.4
90°-100°	417.7	4.1
100°-110°	1367.8	13.5
110°-120°	1352.3	13.4
120°-130°	1105.4	10.9
130°-140°	902.1	8.9
140°-150°	702.0	6.9
150°-160°	505.5	5.0
160°-170°	309.2	3.1
170°-180°	104.5	1.0
0°-30°	772.8	7.6
0°-40°	1363.6	13.5
0°-60°	2623.8	25.9
0°-90°	3353.6	33.1
90°-120°	3137.9	31.0
90°-150°	5847.4	57.8
90°-180°	6767.0	66.9
0°-180°	10120.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	339	339	339	339	339	
5°	330	377	457	557	599	31
15°	271	534	1116	1249	1300	75
25°	199	717	1231	1286	1298	91
35°	142	692	1166	1207	1277	89
45°	103	530	1021	1172	1226	80
55°	77	316	866	996	1021	69
65°	60	178	638	715	728	59
75°	42	109	339	183	186	44
85°	15	32	41	28	24	15
90°	1	3	9	8	9	4
95°	59	170	760	271	176	66
105°	238	339	1358	2580	2451	250
115°	428	512	1103	2279	2676	423
125°	596	664	1087	1798	2112	530
135°	718	794	1078	1550	1748	555
145°	839	901	1076	1334	1461	526
155°	957	988	1083	1193	1239	440
165°	1044	1054	1087	1129	1141	294
175°	1092	1092	1093	1101	1098	104
180°	1096	1096	1096	1096	1096	



TEST NUMBER: P854977

CATALOG NUMBER: SQ2-FB-150U-075D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	339.3	339.3	339.3	339.3	339.3
2.5°	336.6	350.7	366.7	385.1	392.8
5°	329.5	377.3	456.7	557.2	598.6
7.5°	316.7	414.0	664.1	932.9	1015.8
10°	305.0	440.6	874.2	1106.9	1151.6
12.5°	291.9	476.0	1006.0	1169.5	1215.4
15°	270.8	533.9	1115.6	1248.9	1299.9
17.5°	248.9	599.1	1166.5	1298.0	1325.7
20°	233.3	644.7	1194.0	1306.9	1324.4
22.5°	218.9	678.8	1213.5	1299.1	1317.9
25°	199.0	717.3	1231.4	1285.5	1298.3
27.5°	179.8	727.3	1223.6	1259.1	1271.5
30°	168.0	724.6	1211.8	1238.4	1255.9
32.5°	157.6	716.7	1194.9	1220.5	1258.5
35°	141.9	692.1	1166.1	1207.0	1277.1
37.5°	128.6	652.6	1128.4	1211.8	1279.4
40°	120.8	623.1	1100.9	1211.5	1268.9
42.5°	112.8	588.4	1069.6	1198.5	1255.9
45°	102.8	530.2	1021.1	1172.4	1226.5
47.5°	93.3	464.6	976.0	1136.1	1175.6
50°	88.1	419.8	946.0	1103.3	1135.2
52.5°	82.9	376.3	916.0	1064.2	1093.4
55°	76.7	315.9	866.1	995.5	1021.1
57.5°	71.1	264.1	809.3	919.8	940.5
60°	68.5	236.0	765.0	864.9	885.6
62.5°	64.6	210.3	715.4	807.5	827.0
65°	60.4	178.4	637.7	714.7	727.5
67.5°	54.5	154.7	555.3	602.3	578.3
70°	50.5	143.0	499.1	513.9	445.2
72.5°	47.9	130.3	437.8	398.9	269.1
75°	42.4	109.3	339.3	182.7	186.0
77.5°	34.6	84.7	223.1	140.3	143.3
80°	29.4	69.2	117.5	114.2	115.8
82.5°	24.2	53.8	81.0	84.1	81.9
85°	14.7	32.2	40.8	27.7	24.4
87.5°	5.4	12.2	8.4	8.1	8.4
90°	1.1	3.3	9.0	7.9	9.0
92.5°	19.1	69.9	214.5	69.8	55.9
95°	58.6	169.8	759.5	270.6	175.8
97.5°	106.4	224.0	1303.0	788.2	488.6
100°	139.7	252.1	1507.6	1346.3	892.4
102.5°	177.6	287.3	1485.1	1983.7	1537.8
105°	237.8	339.1	1357.7	2579.6	2450.7
107.5°	297.0	390.0	1233.5	2635.3	2777.0
110°	335.8	426.1	1174.1	2570.4	2833.7



TEST NUMBER: P854977

CATALOG NUMBER: SQ2-FB-150U-075D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	372.8	460.4	1138.0	2457.7	2794.9
115°	428.2	511.8	1103.1	2279.4	2676.0
117.5°	482.0	560.2	1089.8	2104.2	2507.0
120°	517.2	591.0	1086.2	2002.1	2394.4
122.5°	548.7	620.7	1086.2	1914.1	2278.0
125°	596.1	664.4	1087.3	1797.5	2111.5
127.5°	636.2	705.7	1086.0	1711.7	1984.8
130°	661.4	731.9	1085.1	1659.7	1906.5
132.5°	683.9	756.2	1082.4	1615.0	1838.9
135°	717.7	793.7	1078.3	1550.3	1747.5
137.5°	753.3	828.6	1075.8	1483.1	1661.3
140°	778.6	851.3	1074.9	1440.4	1609.0
142.5°	803.8	872.2	1074.9	1395.0	1547.7
145°	839.4	901.1	1076.0	1333.6	1461.4
147.5°	876.8	928.1	1077.6	1280.1	1376.7
150°	900.2	945.4	1079.4	1249.1	1330.7
152.5°	923.7	963.5	1080.3	1223.6	1291.0
155°	956.6	988.5	1082.8	1193.2	1239.4
157.5°	986.1	1009.2	1085.3	1169.2	1202.7
160°	1005.0	1023.8	1086.2	1155.5	1182.0
162.5°	1021.3	1036.5	1086.2	1144.5	1163.9
165°	1044.5	1054.4	1087.3	1129.3	1141.4
167.5°	1064.0	1068.9	1088.7	1117.4	1124.1
170°	1074.9	1077.2	1089.6	1111.0	1113.2
172.5°	1083.0	1084.4	1092.3	1106.4	1106.9
175°	1091.9	1091.9	1093.0	1100.8	1098.5
177.5°	1096.3	1095.5	1094.5	1099.9	1096.3
180°	1096.3	1096.3	1096.3	1096.3	1096.3



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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	11.18	11.93	12.27	13.02	14.51	19.92	20.66	21.01	21.75	23.24
	3H	11.91	12.57	13.00	13.67	15.18	21.53	22.20	22.63	23.30	24.80
	4H	12.20	12.83	13.30	13.93	15.44	21.71	22.34	22.81	23.44	24.95
	6H	12.41	12.99	13.52	14.09	15.62	21.79	22.37	22.90	23.47	25.00
	8H	12.46	13.02	13.58	14.13	15.65	21.79	22.34	22.91	23.46	24.98
	12H	12.49	13.01	13.61	14.12	15.67	21.76	22.28	22.88	23.39	24.94
4H	2H	15.57	16.20	16.68	17.30	18.81	20.35	20.98	21.46	22.08	23.59
	3H	16.49	17.02	17.61	18.14	19.67	22.16	22.69	23.28	23.81	25.34
	4H	16.77	17.25	17.89	18.36	19.91	22.39	22.88	23.52	23.99	25.54
	6H	16.89	17.30	18.02	18.44	19.98	22.53	22.95	23.66	24.08	25.62
	8H	16.91	17.30	18.04	18.42	19.98	22.56	22.94	23.69	24.07	25.63
	12H	16.89	17.24	18.04	18.38	19.95	22.52	22.87	23.67	24.01	25.57
8H	4H	17.93	18.32	19.06	19.45	21.00	22.50	22.89	23.63	24.02	25.57
	6H	18.16	18.48	19.31	19.65	21.21	22.70	23.02	23.85	24.19	25.74
	8H	18.23	18.51	19.39	19.66	21.23	22.76	23.04	23.92	24.19	25.76
	12H	18.25	18.50	19.42	19.64	21.25	22.75	22.99	23.91	24.14	25.75
12H	4H	17.94	18.29	19.09	19.43	21.00	22.45	22.80	23.60	23.94	25.50
	6H	18.26	18.53	19.41	19.68	21.26	22.68	22.96	23.84	24.11	25.69
	8H	18.35	18.60	19.52	19.75	21.35	22.74	22.99	23.91	24.14	25.74