

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: P855014

Luminaire Tested: SQ2-FB-100U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855014
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-100U-075D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

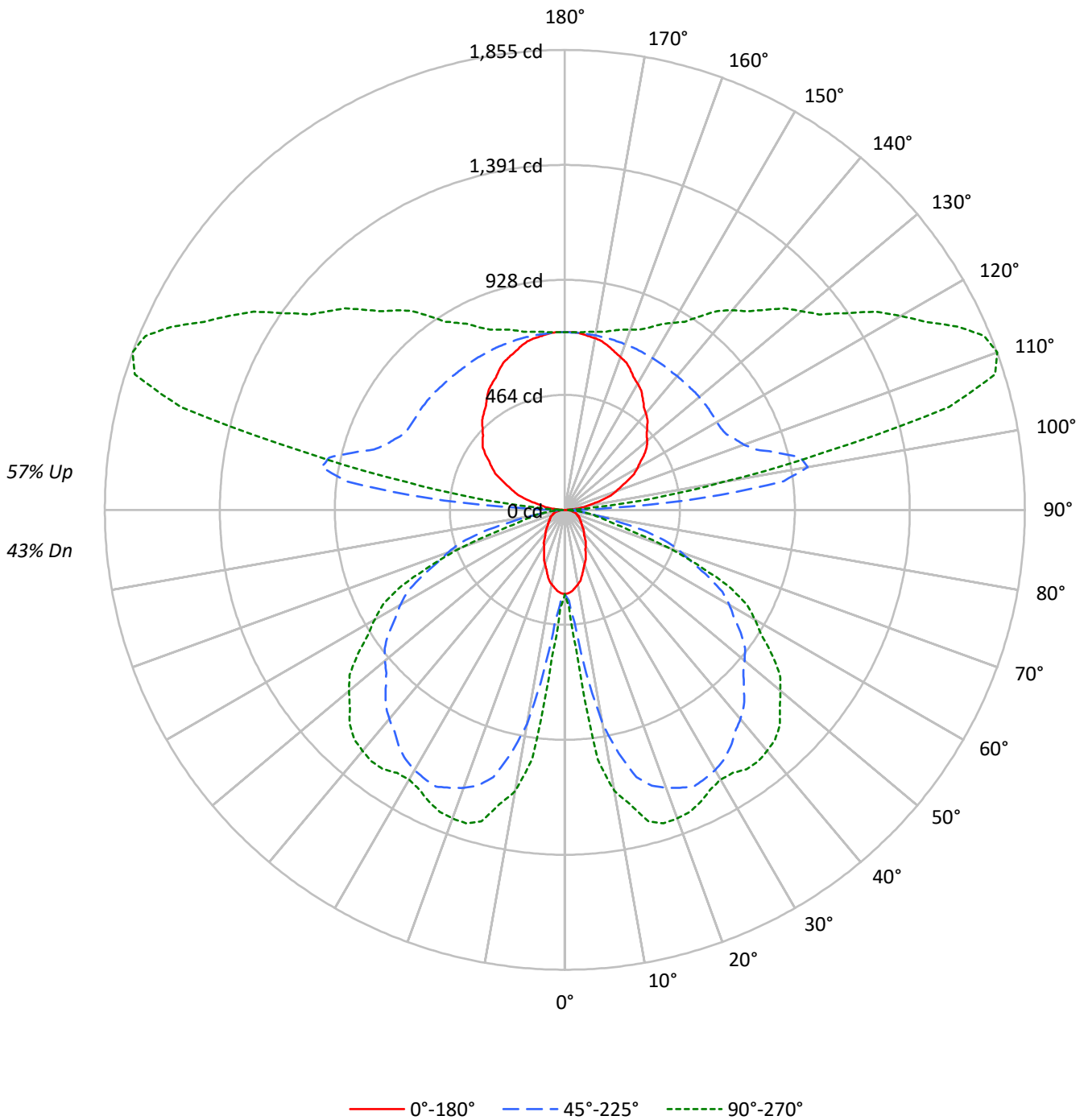
Lumens per Lamp: N/A
Luminaire Lumens: 7814.5 lumens
Efficiency: N/A
Efficacy: 131.8 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 59.3
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

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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43				43
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	44	43	42				36	
2	87	80	73	68	79	73	68	63	60	56	53	49	46	44	38	36	35				30	
3	79	70	62	56	72	64	57	52	53	48	44	43	39	36	33	31	29				24	
4	72	61	53	47	66	56	49	44	47	41	37	38	34	31	29	27	24				21	
5	66	54	46	40	60	50	43	37	41	36	32	34	29	26	26	23	21				18	
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	24	20	18				15	
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16				13	
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	19	16	14				12	
9	48	36	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12				10	
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	16	13	11				9	

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.8	0.7
10°-20°	259.5	3.3
20°-30°	456.5	5.8
30°-40°	590.9	7.6
40°-50°	651.7	8.3
50°-60°	608.5	7.8
60°-70°	470.3	6.0
70°-80°	216.9	2.8
80°-90°	42.7	0.5
90°-100°	299.3	3.8
100°-110°	905.3	11.6
110°-120°	883.8	11.3
120°-130°	722.2	9.2
130°-140°	589.5	7.5
140°-150°	458.9	5.9
150°-160°	330.8	4.2
160°-170°	202.5	2.6
170°-180°	68.4	0.9
0°-30°	772.8	9.9
0°-40°	1363.6	17.5
0°-60°	2623.8	33.6
0°-90°	3353.7	42.9
90°-120°	2088.5	26.7
90°-150°	3859.1	49.4
90°-180°	4461.0	57.1
0°-180°	7814.5	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°	0	2	14	8	7	2
95°	37	118	565	209	132	44
105°	158	221	889	1688	1604	165
115°	280	334	719	1488	1747	277
125°	392	434	709	1175	1383	348
135°	469	519	704	1013	1140	363
145°	548	589	704	872	953	343
155°	624	645	709	782	811	287
165°	683	691	712	739	748	192
175°	714	714	716	721	719	68
180°	717	717	717	717	717	



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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°	5.2	12.0	9.3	8.1	7.9
90°	0.0	2.1	13.5	7.8	6.8
92.5°	12.6	50.9	182.7	60.6	43.6
95°	37.1	117.5	564.9	208.7	131.6
97.5°	71.8	149.5	890.3	589.1	358.8
100°	93.4	169.3	994.6	961.6	645.8
102.5°	117.7	191.0	973.0	1348.7	1075.2
105°	157.5	221.4	888.9	1688.2	1604.5
107.5°	195.4	256.3	807.8	1721.7	1818.5
110°	220.6	278.8	767.4	1679.5	1855.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	244.9	301.4	743.1	1608.5	1831.2
115°	280.2	334.1	719.0	1487.8	1747.4
117.5°	315.2	366.3	710.5	1374.7	1640.6
120°	338.6	387.1	707.8	1308.7	1564.0
122.5°	360.3	406.0	707.8	1250.7	1486.6
125°	391.5	434.5	708.9	1175.0	1382.9
127.5°	417.0	461.4	707.8	1117.8	1295.0
130°	433.1	479.4	707.8	1085.0	1245.6
132.5°	447.6	494.7	706.9	1055.0	1203.2
135°	469.2	518.7	704.4	1013.3	1139.8
137.5°	493.3	540.3	704.4	968.7	1086.0
140°	508.6	554.8	704.4	939.8	1050.9
142.5°	523.9	568.4	703.5	913.3	1010.5
145°	548.0	588.7	704.4	871.6	953.0
147.5°	572.0	606.6	705.7	837.2	899.7
150°	587.4	619.3	706.7	818.1	870.9
152.5°	601.7	630.1	707.6	801.6	844.8
155°	624.5	645.4	708.9	781.5	811.2
157.5°	644.2	661.2	710.3	766.7	787.4
160°	656.0	670.2	711.2	757.6	773.0
162.5°	667.6	678.5	712.0	749.4	762.2
165°	683.0	690.7	712.2	739.4	748.3
167.5°	696.0	700.0	713.5	731.6	735.4
170°	703.3	705.4	714.5	728.0	729.2
172.5°	707.8	709.0	714.5	724.4	724.6
175°	714.5	714.5	715.6	721.2	719.0
177.5°	717.6	716.7	715.8	718.5	716.7
180°	716.7	716.7	716.7	716.7	716.7



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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	12.29	13.11	13.30	14.13	15.50	21.02	21.84	22.03	22.87	24.24
	3H	13.01	13.75	14.03	14.78	16.17	22.64	23.38	23.66	24.41	25.80
	4H	13.31	14.01	14.34	15.05	16.44	22.82	23.52	23.85	24.55	25.95
	6H	13.53	14.17	14.57	15.21	16.62	22.90	23.55	23.95	24.59	25.99
	8H	13.58	14.20	14.63	15.25	16.65	22.91	23.52	23.96	24.58	25.98
	12H	13.61	14.19	14.66	15.24	16.67	22.88	23.46	23.93	24.51	25.94
4H	2H	16.68	17.38	17.72	18.41	19.81	21.46	22.16	22.50	23.19	24.59
	3H	17.61	18.19	18.66	19.25	20.66	23.28	23.86	24.33	24.93	26.34
	4H	17.89	18.42	18.95	19.48	20.91	23.52	24.05	24.57	25.11	26.54
	6H	18.02	18.48	19.08	19.56	20.98	23.66	24.12	24.73	25.20	26.62
	8H	18.04	18.47	19.11	19.54	20.98	23.69	24.11	24.75	25.18	26.62
	12H	18.03	18.42	19.11	19.50	20.95	23.66	24.04	24.74	25.13	26.57
8H	4H	19.06	19.49	20.13	20.56	22.00	23.63	24.06	24.70	25.13	26.57
	6H	19.30	19.65	20.39	20.76	22.20	23.84	24.19	24.93	25.30	26.74
	8H	19.37	19.68	20.46	20.77	22.23	23.90	24.21	24.99	25.30	26.76
	12H	19.39	19.66	20.49	20.75	22.25	23.89	24.16	24.99	25.25	26.75
12H	4H	19.08	19.46	20.16	20.55	21.99	23.58	23.97	24.67	25.05	26.50
	6H	19.39	19.70	20.49	20.80	22.25	23.82	24.13	24.92	25.22	26.68
	8H	19.49	19.76	20.59	20.86	22.35	23.88	24.16	24.99	25.25	26.74