

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: P855229

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855229
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-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

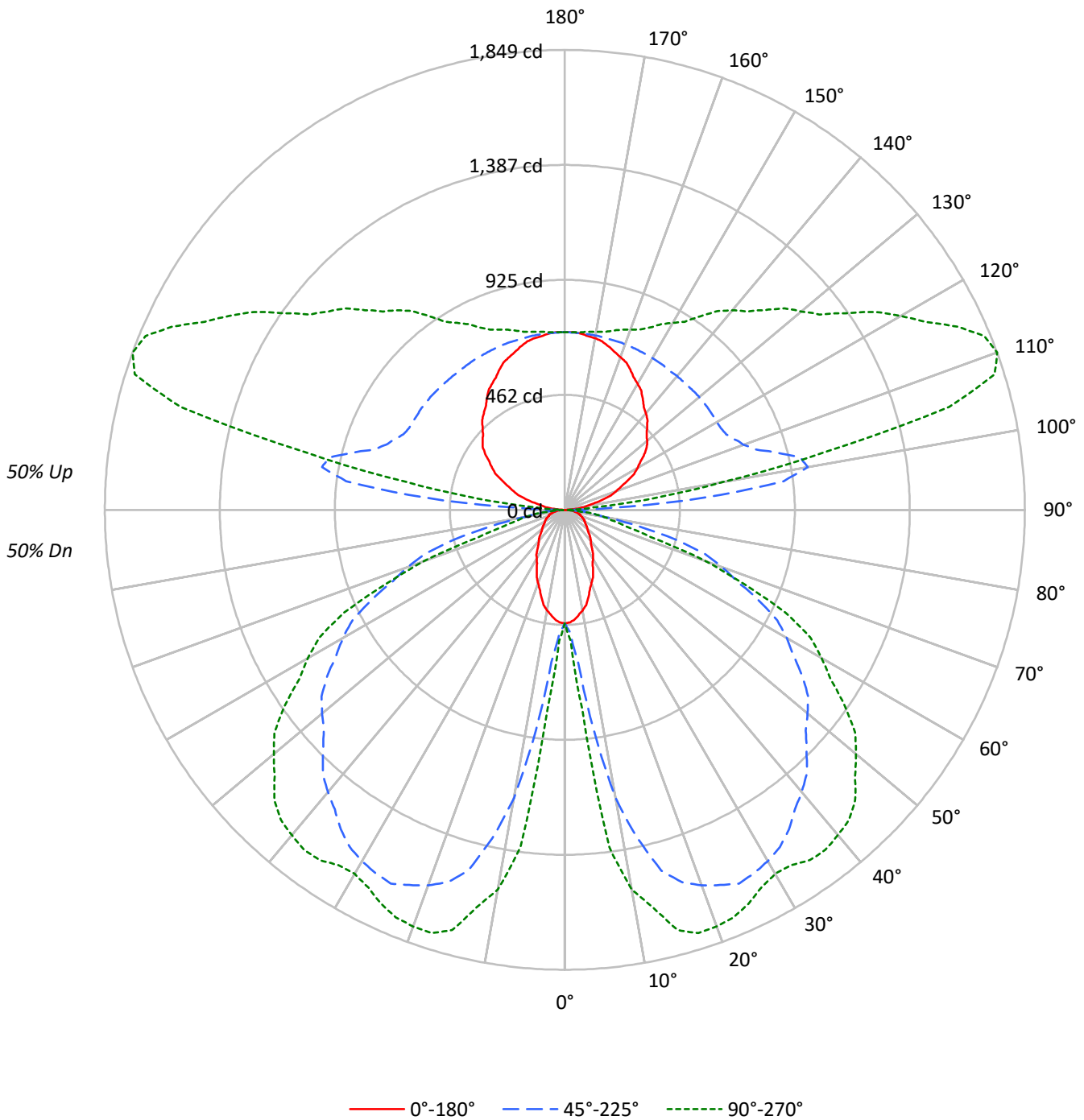
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8957.3 lumens
Efficiency: N/A
Efficacy: 127.6 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): 70.2
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

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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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50				
1	98	93	89	86	90	86	83	80	73	71	68	61	59	57	50	48	47	42				
2	89	81	75	69	81	75	69	65	64	59	56	53	50	47	43	41	39	35				
3	81	71	63	57	74	66	59	54	56	51	46	46	43	40	38	35	33	29				
4	73	62	54	48	67	58	50	45	49	43	39	41	37	33	33	30	28	24				
5	67	55	47	41	62	51	44	38	43	38	33	36	32	28	30	26	24	21				
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	23	21	18				
7	57	44	36	30	52	41	34	28	35	29	25	29	25	21	24	21	18	15				
8	53	40	32	26	48	37	30	25	32	26	22	27	22	19	22	19	16	14				
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12				
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	19	15	13	11				

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.5	0.9
10°-20°	349.1	3.9
20°-30°	614.3	6.9
30°-40°	795.1	8.9
40°-50°	877.0	9.8
50°-60°	818.8	9.1
60°-70°	632.8	7.1
70°-80°	291.9	3.3
80°-90°	57.0	0.6
90°-100°	298.3	3.3
100°-110°	902.1	10.1
110°-120°	880.6	9.8
120°-130°	719.6	8.0
130°-140°	587.4	6.6
140°-150°	457.2	5.1
150°-160°	329.6	3.7
160°-170°	201.8	2.3
170°-180°	68.1	0.8
0°-30°	1039.9	11.6
0°-40°	1835.1	20.5
0°-60°	3530.8	39.4
0°-90°	4512.6	50.4
90°-120°	2081.0	23.2
90°-150°	3845.2	42.9
90°-180°	4445.0	49.6
0°-180°	8957.3	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°	0	2	14	8	7	3
95°	37	117	563	208	131	44
105°	157	221	886	1682	1599	165
115°	279	333	716	1482	1741	276
125°	390	433	706	1171	1378	347
135°	468	517	702	1010	1136	362
145°	546	586	702	868	950	342
155°	622	643	706	779	808	286
165°	681	688	710	737	746	192
175°	712	712	713	719	716	68
180°	714	714	714	714	714	



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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°	7.0	16.1	11.4	10.3	10.1
90°	0.0	2.2	13.5	7.8	6.7
92.5°	12.6	50.7	182.1	60.4	43.5
95°	37.0	117.0	562.8	207.9	131.2
97.5°	71.5	148.9	887.0	587.0	357.4
100°	93.0	168.7	991.1	958.2	643.6
102.5°	117.2	190.2	969.6	1343.9	1071.3
105°	157.0	220.6	885.8	1682.1	1598.7
107.5°	194.6	255.3	805.0	1715.5	1812.0
110°	219.8	277.8	764.7	1673.4	1848.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	244.0	300.3	740.4	1602.7	1824.6
115°	279.2	332.8	716.5	1482.4	1741.2
117.5°	314.1	365.0	707.9	1369.8	1634.6
120°	337.5	385.7	705.1	1304.0	1558.4
122.5°	359.0	404.6	705.1	1246.2	1481.2
125°	390.2	432.9	706.3	1170.7	1377.9
127.5°	415.5	459.8	705.1	1113.7	1290.4
130°	431.6	477.7	705.1	1081.1	1241.1
132.5°	446.0	493.0	704.3	1051.2	1199.0
135°	467.5	516.8	701.9	1009.7	1135.7
137.5°	491.5	538.4	701.9	965.3	1082.1
140°	506.8	552.8	701.9	936.5	1047.1
142.5°	522.0	566.3	701.0	910.1	1006.7
145°	546.0	586.5	701.9	868.4	949.6
147.5°	570.0	604.4	703.2	834.1	896.5
150°	585.2	617.0	704.1	815.1	867.8
152.5°	599.6	627.8	704.9	798.7	841.7
155°	622.2	643.0	706.3	778.7	808.3
157.5°	642.0	658.9	707.6	764.0	784.6
160°	653.6	667.9	708.5	754.8	770.2
162.5°	665.3	676.1	709.4	746.8	759.5
165°	680.6	688.2	709.7	736.8	745.5
167.5°	693.5	697.4	711.0	729.0	732.8
170°	700.7	702.9	711.9	725.4	726.5
172.5°	705.1	706.5	711.9	721.8	722.0
175°	711.9	711.9	713.1	718.6	716.5
177.5°	715.1	714.2	713.3	715.9	714.2
180°	714.2	714.2	714.2	714.2	714.2



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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	14.04	14.93	14.99	15.90	17.16	22.77	23.67	23.72	24.63	25.90
	3H	14.77	15.57	15.73	16.55	17.83	24.40	25.20	25.36	26.18	27.46
	4H	15.07	15.83	16.05	16.81	18.11	24.58	25.34	25.56	26.32	27.61
	6H	15.29	15.99	16.28	16.97	18.28	24.67	25.37	25.65	26.35	27.66
	8H	15.35	16.01	16.34	17.02	18.32	24.67	25.34	25.67	26.34	27.65
	12H	15.38	16.01	16.38	17.01	18.34	24.65	25.28	25.64	26.28	27.61
4H	2H	18.44	19.20	19.42	20.18	21.47	23.22	23.98	24.20	24.96	26.25
	3H	19.38	20.01	20.37	21.02	22.33	25.05	25.68	26.04	26.69	28.00
	4H	19.66	20.24	20.66	21.24	22.57	25.29	25.87	26.29	26.87	28.20
	6H	19.79	20.29	20.81	21.32	22.65	25.44	25.93	26.45	26.96	28.29
	8H	19.82	20.28	20.83	21.30	22.65	25.46	25.93	26.48	26.95	28.29
	12H	19.81	20.23	20.84	21.26	22.61	25.44	25.86	26.47	26.89	28.24
8H	4H	20.84	21.30	21.85	22.32	23.67	25.41	25.87	26.42	26.89	28.24
	6H	21.08	21.46	22.11	22.52	23.86	25.62	26.00	26.65	27.06	28.40
	8H	21.15	21.48	22.19	22.53	23.89	25.68	26.01	26.72	27.06	28.42
	12H	21.18	21.47	22.23	22.51	23.92	25.67	25.97	26.72	27.01	28.42
12H	4H	20.86	21.28	21.89	22.31	23.66	25.36	25.78	26.39	26.82	28.17
	6H	21.17	21.51	22.22	22.56	23.92	25.60	25.94	26.65	26.98	28.35
	8H	21.28	21.57	22.33	22.62	24.02	25.67	25.96	26.72	27.01	28.41