

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: P855239

Luminaire Tested: SQ2-FB-050U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855239
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-050U-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

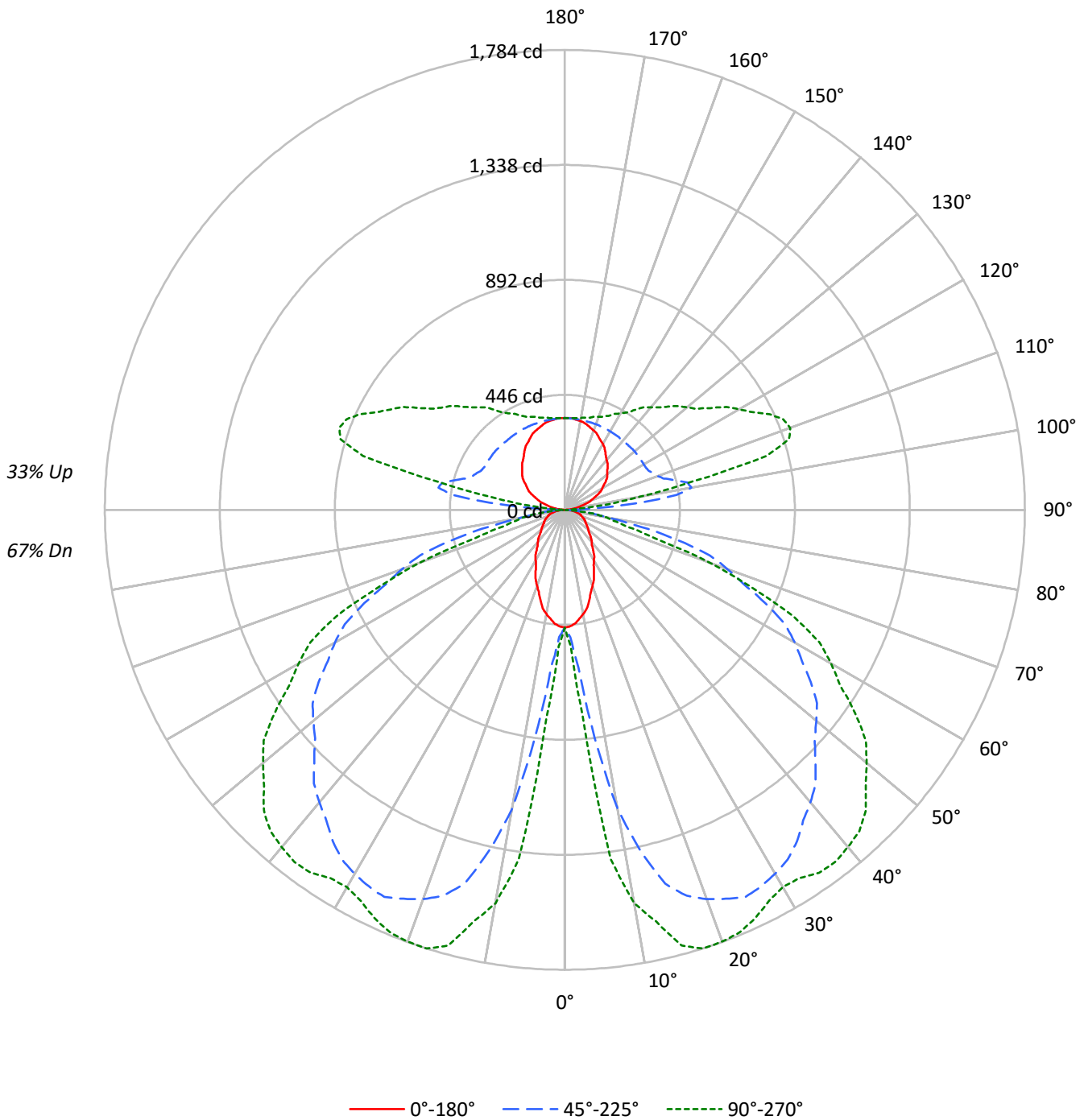
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6726.1 lumens
Efficiency: N/A
Efficacy: 128.4 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-Direct

Input Watts (W): 52.4
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									
RC	80									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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67																			
1	101	97	93	89	95	91	88	85	81	78	76	72	70	68	63	62	60	56																			
2	92	84	77	72	86	79	74	69	71	66	62	62	59	56	55	52	50	46																			
3	83	73	65	59	78	69	62	57	62	56	51	55	50	47	48	45	42	38																			
4	76	64	56	50	71	61	53	47	54	48	43	48	43	39	42	39	35	32																			
5	70	57	48	42	65	54	46	40	48	42	37	43	38	34	38	34	30	27																			
6	64	51	42	36	60	48	40	35	43	37	32	38	33	29	34	30	26	24																			
7	59	46	37	31	55	43	36	30	39	32	28	35	29	25	31	26	23	20																			
8	54	41	33	27	51	39	32	26	35	29	24	32	26	22	28	24	20	18																			
9	51	38	30	24	48	36	28	23	32	26	22	29	24	20	26	21	18	16																			
10	47	34	27	22	44	33	26	21	30	23	19	27	21	18	24	19	16	14																			

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	1.1
10°-20°	349.1	5.2
20°-30°	614.3	9.1
30°-40°	795.1	11.8
40°-50°	877.0	13.0
50°-60°	818.8	12.2
60°-70°	632.8	9.4
70°-80°	291.9	4.3
80°-90°	56.2	0.8
90°-100°	142.0	2.1
100°-110°	450.5	6.7
110°-120°	441.7	6.6
120°-130°	359.4	5.3
130°-140°	293.1	4.4
140°-150°	228.5	3.4
150°-160°	164.6	2.4
160°-170°	100.6	1.5
170°-180°	33.9	0.5
0°-30°	1039.9	15.5
0°-40°	1835.1	27.3
0°-60°	3530.8	52.5
0°-90°	4511.8	67.1
90°-120°	1034.2	15.4
90°-150°	1915.2	28.5
90°-180°	2214.0	32.9
0°-180°	6726.1	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	1	3	3	3	2
95°	19	58	258	96	62	22
105°	78	110	444	846	811	83
115°	140	166	359	745	877	138
125°	194	217	353	584	688	173
135°	234	257	351	503	566	181
145°	274	294	351	434	472	171
155°	312	323	352	387	402	144
165°	340	343	353	367	370	96
175°	356	354	356	358	357	34
180°	357	357	357	357	357	

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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	15.8	9.5	9.5	9.5
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.9	79.7	26.5	18.6
95°	19.0	57.5	257.9	95.6	61.7
97.5°	35.4	74.5	436.8	273.0	167.5
100°	47.1	84.4	497.8	453.9	294.9
102.5°	59.6	95.2	487.1	666.5	510.2
105°	78.5	110.3	444.1	845.8	810.7
107.5°	97.3	126.7	403.0	864.5	911.9
110°	109.9	138.4	382.4	843.0	930.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	122.4	149.2	370.7	805.9	917.2
115°	140.2	166.5	358.9	745.3	876.9
117.5°	157.4	182.4	354.1	687.0	819.7
120°	168.2	192.3	353.2	651.0	779.4
122.5°	178.9	202.2	353.2	622.2	741.7
125°	194.0	217.1	353.2	584.4	688.5
127.5°	207.2	229.4	353.2	555.1	643.9
130°	215.2	238.3	353.2	537.8	617.9
132.5°	223.4	246.4	352.3	524.2	596.3
135°	234.4	257.3	350.9	502.7	566.3
137.5°	245.1	269.2	350.7	482.1	538.9
140°	252.2	276.5	349.9	467.6	519.2
142.5°	261.3	284.5	350.7	453.2	501.2
145°	273.6	294.5	350.9	433.7	472.1
147.5°	286.0	303.7	351.2	416.5	447.9
150°	294.9	309.2	352.1	406.5	431.7
152.5°	302.0	314.6	352.1	398.3	419.2
155°	311.8	322.8	352.1	387.3	402.5
157.5°	322.1	329.5	353.2	380.4	390.9
160°	327.4	334.0	353.2	375.8	384.7
162.5°	332.8	337.7	353.2	372.2	378.3
165°	339.7	343.0	353.2	366.8	370.1
167.5°	346.3	347.2	354.3	362.9	365.8
170°	349.9	349.9	354.3	361.1	362.2
172.5°	351.6	352.5	354.3	359.3	359.5
175°	355.5	354.3	355.5	357.7	356.6
177.5°	356.6	355.7	355.7	357.5	355.7
180°	356.6	356.6	356.6	356.6	356.6



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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	15.43	16.51	16.22	17.32	18.33	24.17	25.24	24.96	26.06	27.06
	3H	16.18	17.15	16.98	17.97	19.00	25.81	26.77	26.61	27.60	28.63
	4H	16.49	17.40	17.31	18.24	19.28	26.00	26.91	26.82	27.75	28.79
	6H	16.72	17.56	17.55	18.40	19.46	26.09	26.94	26.93	27.78	28.84
	8H	16.78	17.58	17.62	18.45	19.50	26.10	26.91	26.95	27.77	28.83
	12H	16.82	17.58	17.66	18.44	19.52	26.08	26.85	26.93	27.71	28.79
4H	2H	19.86	20.77	20.68	21.61	22.65	24.64	25.55	25.46	26.39	27.43
	3H	20.81	21.57	21.65	22.44	23.50	26.48	27.25	27.32	28.11	29.17
	4H	21.10	21.80	21.95	22.66	23.75	26.73	27.43	27.58	28.29	29.38
	6H	21.25	21.85	22.11	22.74	23.83	26.89	27.49	27.76	28.38	29.47
	8H	21.27	21.83	22.14	22.72	23.82	26.92	27.48	27.79	28.37	29.47
	12H	21.28	21.78	22.17	22.69	23.79	26.90	27.41	27.80	28.31	29.42
8H	4H	22.30	22.86	23.17	23.74	24.84	26.87	27.43	27.74	28.31	29.42
	6H	22.54	23.01	23.44	23.93	25.04	27.08	27.55	27.98	28.47	29.58
	8H	22.62	23.03	23.53	23.95	25.07	27.15	27.56	28.06	28.48	29.60
	12H	22.65	23.02	23.57	23.93	25.10	27.15	27.51	28.06	28.42	29.59
12H	4H	22.33	22.83	23.22	23.73	24.84	26.83	27.34	27.72	28.24	29.35
	6H	22.64	23.05	23.55	23.97	25.09	27.07	27.48	27.98	28.40	29.52
	8H	22.76	23.12	23.67	24.03	25.20	27.15	27.51	28.06	28.42	29.59