

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: P853845

Luminaire Tested: SQ2-FB-050U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853845
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-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

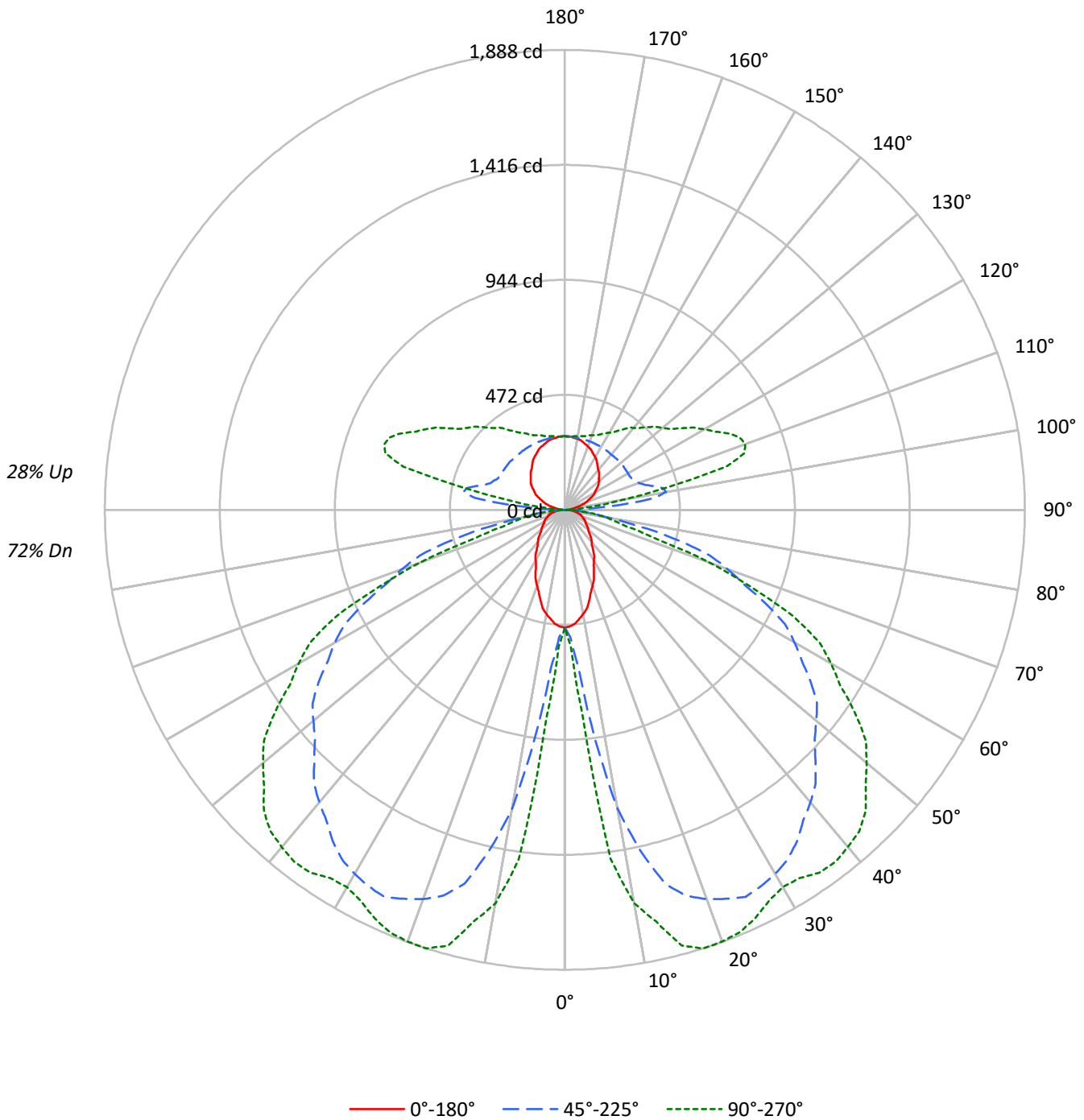
Lumens per Lamp: N/A
Luminaire Lumens: 6650.0 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64
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	50	30	10	50	30	10	50	30	10	0															
RCR																																													
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	76	72																										
1	102	98	94	90	97	93	89	86	83	81	78	75	73	71	67	65	64	64	60																										
2	93	85	78	73	88	81	75	70	73	68	64	65	61	58	58	55	53	53	49																										
3	84	74	66	60	79	70	63	57	63	58	53	57	52	49	51	47	44	44	41																										
4	77	65	57	50	72	62	54	48	56	50	44	50	45	41	45	41	37	37	34																										
5	70	58	49	42	66	55	47	41	50	43	38	45	39	35	40	36	32	32	29																										
6	64	51	43	36	61	49	41	35	44	38	33	40	34	30	36	31	28	28	25																										
7	59	46	38	32	56	44	36	31	40	33	28	36	31	26	33	28	24	24	22																										
8	55	42	33	28	52	40	32	27	36	30	25	33	27	23	30	25	21	21	19																										
9	51	38	30	25	48	36	29	24	33	27	22	30	25	21	27	23	19	19	17																										
10	48	35	27	22	45	33	26	21	30	24	20	28	22	19	25	20	17	17	15																										

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7800	7800	7800
5°	7605	10541	13817
10°	7122	20412	26886
15°	6445	26557	30945
20°	5708	29215	32407
25°	5049	31242	32938
30°	4460	32175	33346
35°	3983	32735	35847
40°	3623	33046	38088
45°	3341	33202	39884
50°	3150	33840	40609
55°	3074	34719	40932
60°	3152	35179	40729
65°	3282	34697	39580
70°	3399	33555	29934
75°	3768	30137	16519
80°	3887	15546	15332
85°	3872	10763	6447

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 41301 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	1.2
10°-20°	369.5	5.6
20°-30°	650.1	9.8
30°-40°	841.5	12.7
40°-50°	928.1	14.0
50°-60°	866.5	13.0
60°-70°	669.7	10.1
70°-80°	308.9	4.6
80°-90°	59.4	0.9
90°-100°	120.3	1.8
100°-110°	381.5	5.7
110°-120°	374.1	5.6
120°-130°	304.4	4.6
130°-140°	248.2	3.7
140°-150°	193.5	2.9
150°-160°	139.4	2.1
160°-170°	85.2	1.3
170°-180°	28.8	0.4
0°-30°	1100.5	16.5
0°-40°	1942.0	29.2
0°-60°	3736.5	56.2
0°-90°	4774.5	71.8
90°-120°	875.9	13.2
90°-150°	1622.1	24.4
90°-180°	1875.0	28.2
0°-180°	6650.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	483	483	483	483	483	
5°	469	537	650	793	852	44
15°	386	760	1589	1779	1851	107
25°	283	1022	1754	1831	1849	130
35°	202	986	1661	1719	1819	127
45°	146	755	1454	1670	1747	113
55°	109	450	1233	1418	1454	98
65°	86	254	908	1018	1036	84
75°	60	156	483	260	265	62
85°	21	46	58	39	35	22
90°	0	1	3	3	3	2
95°	16	49	218	81	52	19
105°	66	93	376	716	687	70
115°	119	141	304	631	743	117
125°	164	184	299	495	583	146
135°	198	218	297	426	480	153
145°	232	249	297	367	400	145
155°	264	273	298	328	341	122
165°	288	290	299	311	313	81
175°	301	300	301	303	302	29
180°	302	302	302	302	302	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	483.1	483.1	483.1	483.1	483.1
2.5°	479.4	499.4	522.2	548.4	559.3
5°	469.2	537.3	650.4	793.4	852.5
7.5°	451.1	589.6	945.8	1328.5	1446.6
10°	434.4	627.4	1245.0	1576.3	1639.9
12.5°	415.8	677.9	1432.7	1665.5	1730.9
15°	385.6	760.3	1588.8	1778.6	1851.3
17.5°	354.5	853.2	1661.3	1848.4	1888.0
20°	332.2	918.1	1700.3	1861.1	1886.1
22.5°	311.7	966.7	1728.2	1850.0	1876.8
25°	283.4	1021.5	1753.7	1830.8	1848.9
27.5°	256.0	1035.9	1742.6	1793.1	1810.9
30°	239.2	1031.9	1725.8	1763.6	1788.6
32.5°	224.4	1020.7	1701.7	1738.2	1792.3
35°	202.1	985.6	1660.8	1718.8	1818.7
37.5°	183.0	929.3	1606.9	1725.7	1822.0
40°	171.9	887.3	1567.9	1725.4	1807.1
42.5°	160.7	838.0	1523.3	1706.8	1788.6
45°	146.3	755.0	1454.1	1669.5	1746.7
47.5°	132.9	661.6	1390.0	1617.9	1674.3
50°	125.4	597.8	1347.2	1571.2	1616.7
52.5°	118.0	535.9	1304.5	1515.4	1557.2
55°	109.2	449.8	1233.4	1417.7	1454.1
57.5°	101.3	376.1	1152.6	1309.8	1339.3
60°	97.6	336.0	1089.4	1231.8	1261.3
62.5°	92.0	299.6	1018.8	1149.9	1177.7
65°	85.9	254.0	908.2	1017.8	1036.0
67.5°	77.6	220.2	790.7	857.7	823.7
70°	72.0	203.7	710.8	731.8	634.1
72.5°	68.3	185.5	623.4	568.1	383.3
75°	60.4	155.8	483.1	260.3	264.8
77.5°	49.2	120.6	317.8	199.9	203.9
80°	41.8	98.6	167.2	162.6	164.9
82.5°	34.4	76.6	115.2	119.8	116.6
85°	20.9	45.9	58.1	39.4	34.8
87.5°	7.4	16.7	9.9	9.9	9.9
90°	0.0	0.9	2.8	2.8	2.8
92.5°	5.3	21.1	67.4	22.5	15.8
95°	16.1	48.6	218.4	81.0	52.2
97.5°	30.0	63.1	370.0	231.2	141.9
100°	39.9	71.5	421.7	384.4	249.8
102.5°	50.5	80.6	412.6	564.5	432.1
105°	66.5	93.4	376.1	716.4	686.6
107.5°	82.4	107.3	341.3	732.2	772.3
110°	93.1	117.2	323.9	714.0	788.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	103.7	126.4	314.0	682.5	776.9
115°	118.7	141.0	303.9	631.2	742.7
117.5°	133.3	154.5	299.9	581.9	694.2
120°	142.5	162.9	299.2	551.4	660.0
122.5°	151.6	171.3	299.2	526.9	628.1
125°	164.3	183.8	299.2	494.9	583.1
127.5°	175.5	194.3	299.2	470.1	545.3
130°	182.3	201.8	299.2	455.5	523.3
132.5°	189.2	208.7	298.4	444.0	505.1
135°	198.5	218.0	297.3	425.7	479.6
137.5°	207.6	228.0	297.1	408.3	456.4
140°	213.7	234.1	296.3	396.1	439.7
142.5°	221.3	241.0	297.1	383.8	424.5
145°	231.7	249.4	297.3	367.3	399.8
147.5°	242.2	257.2	297.4	352.8	379.3
150°	249.8	261.8	298.2	344.3	365.6
152.5°	255.9	266.4	298.2	337.4	355.0
155°	264.0	273.3	298.2	327.9	340.9
157.5°	272.8	279.1	299.2	322.2	331.1
160°	277.3	282.9	299.2	318.3	325.8
162.5°	281.9	286.0	299.2	315.2	320.4
165°	287.8	290.5	299.2	310.6	313.4
167.5°	293.3	294.0	300.1	307.4	309.8
170°	296.3	296.3	300.1	305.8	306.8
172.5°	297.8	298.6	300.1	304.3	304.5
175°	301.1	300.1	301.1	302.9	302.0
177.5°	302.0	301.3	301.2	302.7	301.2
180°	302.0	302.0	302.0	302.0	302.0



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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	15.98	17.12	16.72	17.89	18.81	24.72	25.86	25.46	26.63	27.55
	3H	16.74	17.76	17.49	18.54	19.49	26.36	27.39	27.12	28.17	29.12
	4H	17.05	18.02	17.82	18.80	19.76	26.56	27.53	27.33	28.31	29.27
	6H	17.28	18.18	18.06	18.97	19.94	26.66	27.55	27.44	28.35	29.32
	8H	17.35	18.20	18.14	19.01	19.99	26.67	27.52	27.46	28.34	29.31
	12H	17.38	18.20	18.18	19.00	20.01	26.65	27.47	27.45	28.27	29.28
4H	2H	20.42	21.39	21.19	22.17	23.13	25.20	26.17	25.97	26.95	27.91
	3H	21.38	22.19	22.16	23.00	23.98	27.05	27.86	27.84	28.68	29.66
	4H	21.67	22.41	22.48	23.23	24.23	27.30	28.04	28.10	28.85	29.86
	6H	21.82	22.46	22.64	23.30	24.31	27.46	28.10	28.28	28.94	29.95
	8H	21.85	22.44	22.67	23.28	24.31	27.50	28.09	28.32	28.93	29.95
	12H	21.86	22.39	22.70	23.25	24.28	27.48	28.02	28.33	28.88	29.91
8H	4H	22.87	23.47	23.70	24.30	25.33	27.44	28.04	28.27	28.88	29.90
	6H	23.12	23.61	23.98	24.49	25.52	27.66	28.15	28.52	29.03	30.06
	8H	23.20	23.63	24.06	24.51	25.55	27.73	28.16	28.59	29.04	30.08
	12H	23.24	23.62	24.11	24.49	25.59	27.73	28.12	28.60	28.98	30.08
12H	4H	22.90	23.44	23.75	24.30	25.33	27.41	27.94	28.25	28.80	29.83
	6H	23.22	23.66	24.08	24.53	25.58	27.65	28.08	28.51	28.96	30.00
	8H	23.34	23.72	24.21	24.59	25.69	27.73	28.11	28.60	28.98	30.08