

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: P854183

Luminaire Tested: SQ2-PR1-050U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854183
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-050U-125D-940-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

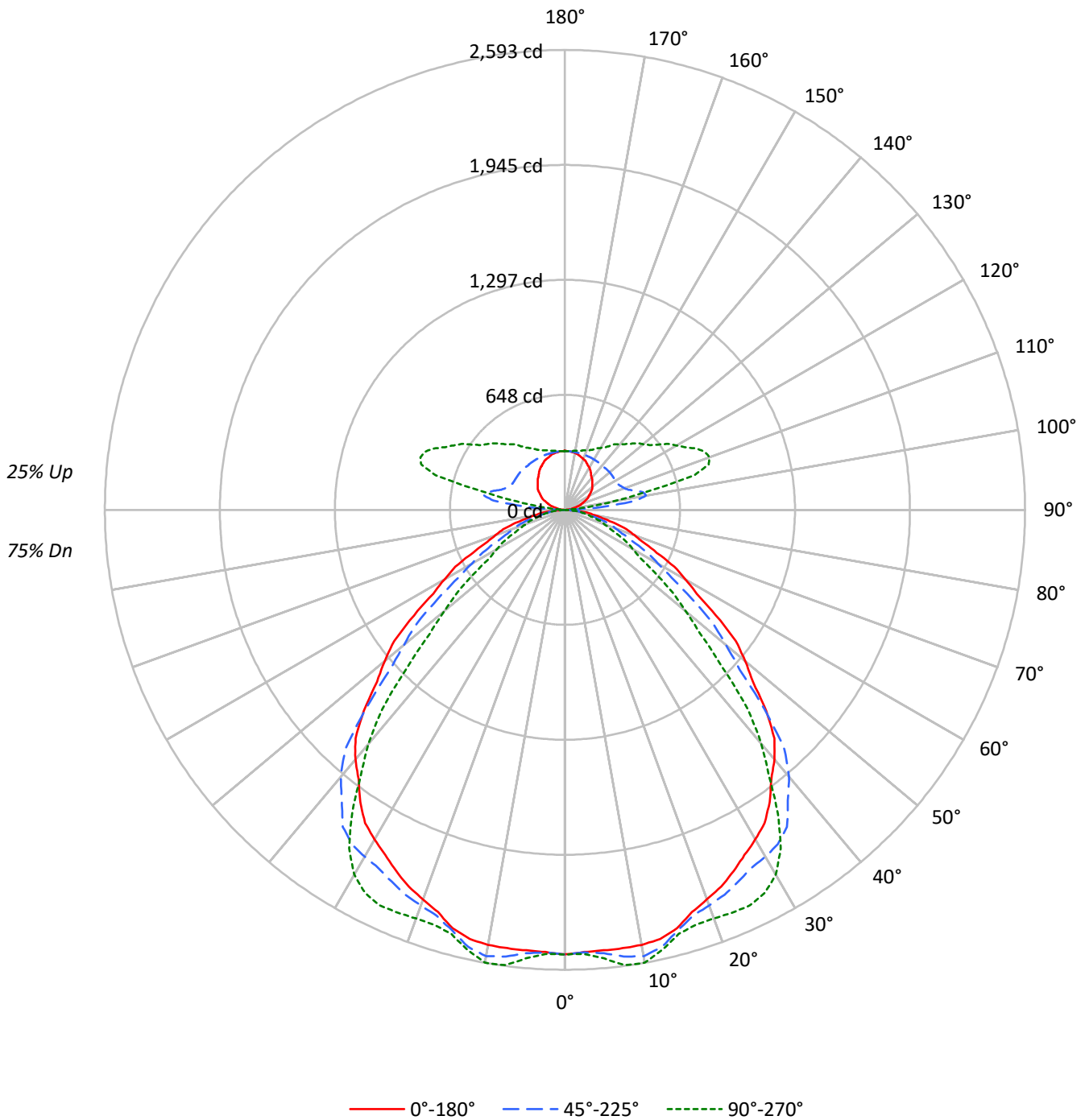
Lumens per Lamp: N/A
Luminaire Lumens: 8091.6 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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				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	113	113	113	113	107	107	107	107	97	97	97	87	87	87	79	79	79	75
1	104	100	96	93	99	95	92	89	87	84	82	78	77	75	71	70	68	65
2	96	89	83	78	91	85	79	75	77	73	69	70	67	64	64	61	59	56
3	88	79	71	66	83	75	69	64	69	64	59	63	59	55	57	54	51	48
4	81	70	62	56	77	67	60	55	62	56	51	56	52	48	52	48	45	42
5	75	63	55	49	71	61	53	48	56	50	45	51	46	42	47	43	40	37
6	69	57	49	43	66	55	47	42	50	44	40	46	41	37	43	38	35	33
7	64	52	44	38	61	50	42	37	46	40	35	42	37	33	39	35	31	29
8	60	47	39	34	57	46	38	33	42	36	32	39	34	30	36	32	28	26
9	56	43	36	31	53	42	35	30	39	33	29	36	31	27	33	29	26	24
10	52	40	33	28	50	39	32	27	36	30	26	33	28	25	31	27	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	40461	40461	40461
5°	40410	40658	41154
10°	40835	41882	42510
15°	40822	41035	41377
20°	40161	40776	42137
25°	40048	41186	43871
30°	40005	42101	44292
35°	39626	43000	41238
40°	38712	41406	36290
45°	36632	36340	28697
50°	33302	29710	22265
55°	29267	24451	17332
60°	25326	19549	14270
65°	21861	16202	12493
70°	19657	14351	11094
75°	18010	12433	10200
80°	15676	9977	9977
85°	11356	8985	4724

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 39598 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.0	3.0
10°-20°	700.5	8.7
20°-30°	1082.9	13.4
30°-40°	1302.5	16.1
40°-50°	1169.5	14.5
50°-60°	783.5	9.7
60°-70°	455.7	5.6
70°-80°	234.1	2.9
80°-90°	58.2	0.7
90°-100°	132.3	1.6
100°-110°	419.6	5.2
110°-120°	411.4	5.1
120°-130°	334.8	4.1
130°-140°	273.0	3.4
140°-150°	212.8	2.6
150°-160°	153.3	1.9
160°-170°	93.7	1.2
170°-180°	31.6	0.4
0°-30°	2025.5	25.0
0°-40°	3328.0	41.1
0°-60°	5281.0	65.3
0°-90°	6029.0	74.5
90°-120°	963.3	11.9
90°-150°	1783.9	22.0
90°-180°	2063.0	25.5
0°-180°	8091.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2506	2506	2506	2506	2506	
5°	2493	2536	2509	2514	2539	238
15°	2442	2542	2455	2463	2475	686
25°	2248	2338	2312	2398	2463	1037
35°	2010	2028	2182	2140	2092	1253
45°	1604	1734	1592	1342	1257	1227
55°	1040	1080	869	671	616	934
65°	572	585	424	344	327	579
75°	289	281	199	168	164	306
85°	61	49	48	33	26	76
90°	0	1	3	3	3	3
95°	18	54	240	89	57	21
105°	73	103	414	788	755	77
115°	131	155	334	694	817	129
125°	181	202	329	544	641	161
135°	218	240	327	468	528	169
145°	255	274	327	404	440	160
155°	290	301	328	361	375	134
165°	316	320	329	342	345	89
175°	331	330	331	333	332	31
180°	332	332	332	332	332	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2506.0	2506.0	2506.0	2506.0	2506.0
2.5°	2495.8	2525.8	2497.9	2500.0	2506.0
5°	2493.3	2535.7	2508.6	2514.3	2539.2
7.5°	2492.7	2553.2	2540.3	2555.8	2588.8
10°	2490.7	2563.1	2554.6	2557.9	2592.9
12.5°	2478.4	2562.9	2523.9	2520.8	2539.8
15°	2442.2	2542.1	2454.9	2462.9	2475.4
17.5°	2378.3	2482.7	2399.8	2427.9	2452.4
20°	2337.4	2439.8	2373.2	2409.9	2452.4
22.5°	2300.6	2403.1	2348.7	2400.1	2458.5
25°	2248.0	2337.9	2311.9	2397.7	2462.6
27.5°	2192.8	2245.8	2276.6	2391.6	2437.1
30°	2145.8	2180.8	2258.2	2358.3	2375.7
32.5°	2094.7	2115.7	2233.7	2285.8	2263.3
35°	2010.4	2027.9	2181.6	2139.6	2092.2
37.5°	1910.3	1946.3	2064.6	1943.8	1889.4
40°	1836.7	1896.7	1964.5	1784.2	1721.8
42.5°	1746.8	1842.7	1831.6	1602.0	1525.6
45°	1604.3	1734.2	1591.5	1341.8	1256.8
47.5°	1436.2	1569.6	1336.0	1113.0	1033.6
50°	1325.8	1433.2	1182.8	973.9	886.4
52.5°	1213.4	1290.9	1052.0	843.2	763.8
55°	1039.7	1079.7	868.6	670.6	615.7
57.5°	880.3	905.8	709.7	541.7	501.2
60°	784.3	801.7	605.4	474.4	441.9
62.5°	696.4	709.9	521.6	417.4	392.9
65°	572.2	584.7	424.1	344.5	327.0
67.5°	473.6	480.1	349.0	286.2	269.8
70°	416.4	418.9	304.0	247.5	235.0
72.5°	365.3	361.8	261.1	214.9	206.4
75°	288.7	281.2	199.3	168.5	163.5
77.5°	215.6	207.6	140.0	129.8	129.8
80°	168.6	158.6	107.3	107.3	107.3
82.5°	125.7	111.7	82.8	82.7	80.7
85°	61.3	48.8	48.5	33.0	25.5
87.5°	16.3	16.6	6.8	6.8	6.8
90°	0.0	1.0	3.1	3.1	3.1
92.5°	5.8	23.2	74.2	24.7	17.3
95°	17.8	53.5	240.2	89.1	57.4
97.5°	33.0	69.4	406.9	254.3	156.0
100°	43.9	78.6	463.7	422.8	274.7
102.5°	55.6	88.7	453.7	620.9	475.2
105°	73.1	102.7	413.6	787.8	755.2
107.5°	90.7	118.0	375.4	805.2	849.4
110°	102.4	128.9	356.2	785.2	866.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.1	139.0	345.3	750.6	854.4
115°	130.6	155.1	334.2	694.2	816.8
117.5°	146.6	169.9	329.8	639.9	763.5
120°	156.7	179.1	329.0	606.4	725.9
122.5°	166.7	188.3	329.0	579.5	690.8
125°	180.7	202.1	329.0	544.3	641.3
127.5°	193.0	213.6	329.0	517.0	599.7
130°	200.5	222.0	329.0	501.0	575.5
132.5°	208.1	229.5	328.2	488.3	555.5
135°	218.3	239.7	326.9	468.2	527.5
137.5°	228.3	250.8	326.7	449.1	502.0
140°	235.0	257.5	325.9	435.6	483.6
142.5°	243.4	265.0	326.7	422.1	466.9
145°	254.9	274.3	326.9	404.0	439.7
147.5°	266.3	282.9	327.1	388.0	417.2
150°	274.7	288.0	328.0	378.6	402.1
152.5°	281.4	293.0	328.0	371.0	390.4
155°	290.4	300.6	328.0	360.7	375.0
157.5°	300.0	306.9	329.0	354.3	364.1
160°	305.0	311.1	329.0	350.1	358.3
162.5°	310.0	314.5	329.0	346.7	352.4
165°	316.5	319.5	329.0	341.6	344.7
167.5°	322.5	323.4	330.1	338.1	340.7
170°	325.9	325.9	330.1	336.3	337.4
172.5°	327.5	328.4	330.1	334.7	334.9
175°	331.1	330.1	331.1	333.2	332.1
177.5°	332.1	331.3	331.3	332.9	331.3
180°	332.1	332.1	332.1	332.1	332.1



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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	21.68	22.75	22.41	23.48	24.36	18.41	19.47	19.13	20.21	21.08
	3H	22.93	23.88	23.67	24.63	25.54	19.49	20.44	20.23	21.19	22.10
	4H	23.39	24.29	24.15	25.04	25.97	19.90	20.79	20.66	21.55	22.47
	6H	23.72	24.54	24.49	25.31	26.24	20.24	21.06	21.01	21.83	22.76
	8H	23.81	24.59	24.59	25.38	26.31	20.33	21.11	21.11	21.90	22.83
	12H	23.85	24.59	24.63	25.37	26.33	20.35	21.09	21.13	21.87	22.83
4H	2H	21.79	22.68	22.55	23.44	24.36	19.00	19.90	19.76	20.65	21.57
	3H	23.28	24.02	24.05	24.81	25.75	20.29	21.03	21.06	21.82	22.76
	4H	23.88	24.55	24.67	25.34	26.31	20.80	21.47	21.59	22.26	23.23
	6H	24.34	24.92	25.15	25.74	26.71	21.25	21.83	22.05	22.64	23.62
	8H	24.48	25.02	25.29	25.83	26.82	21.37	21.91	22.18	22.73	23.71
	12H	24.54	25.03	25.37	25.86	26.85	21.40	21.89	22.23	22.72	23.71
8H	4H	23.92	24.46	24.73	25.27	26.26	21.12	21.66	21.93	22.47	23.46
	6H	24.48	24.92	25.31	25.78	26.76	21.66	22.11	22.50	22.96	23.95
	8H	24.67	25.07	25.52	25.92	26.93	21.85	22.24	22.70	23.10	24.10
	12H	24.79	25.14	25.63	25.98	27.04	21.92	22.27	22.77	23.11	24.17
12H	4H	23.89	24.37	24.71	25.21	26.20	21.15	21.63	21.97	22.47	23.46
	6H	24.46	24.86	25.31	25.71	26.71	21.72	22.12	22.57	22.97	23.98
	8H	24.68	25.03	25.53	25.88	26.93	21.94	22.29	22.79	23.13	24.19