

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: P854099

Luminaire Tested: SQ2-PP3-050U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854099
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-050U-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

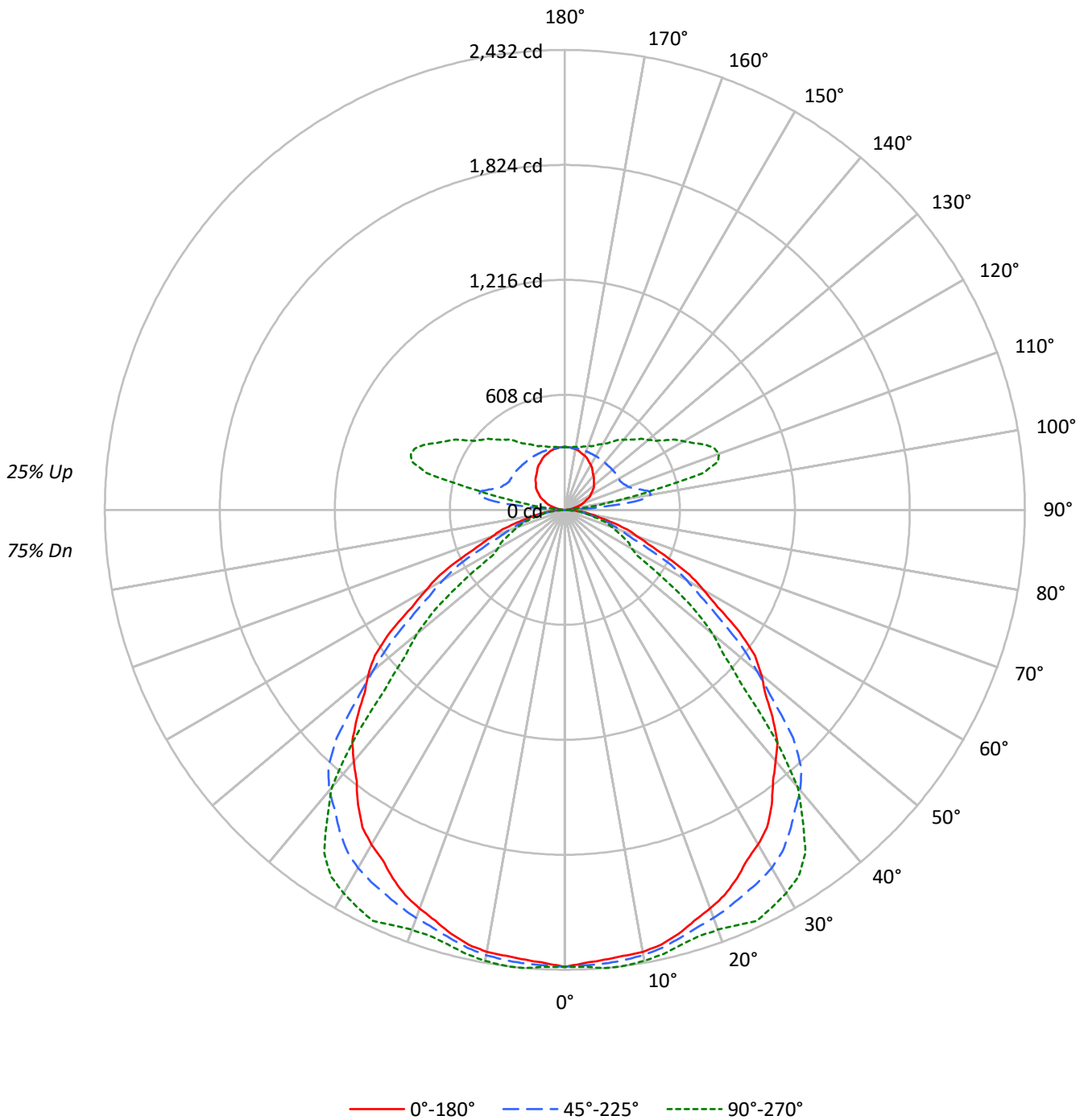
Lumens per Lamp: N/A
Luminaire Lumens: 8149.0 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	50	30	10
RCR																				
0	113	113	113	113	107	107	107	107	97	97	97	88	88	88	79	79	79	75		
1	104	100	96	93	99	95	92	89	87	84	82	78	77	75	71	70	68	65		
2	95	88	82	77	91	84	79	74	77	73	69	70	67	64	63	61	59	55		
3	88	78	71	65	83	75	68	63	68	63	59	62	58	55	57	53	51	48		
4	80	70	62	56	76	67	60	54	61	55	51	56	51	47	51	47	44	41		
5	74	62	54	48	70	60	52	47	55	49	44	51	45	41	46	42	39	36		
6	69	56	48	42	65	54	47	41	50	44	39	46	41	37	42	38	34	32		
7	64	51	43	37	60	49	42	36	45	39	34	42	37	33	39	34	31	28		
8	59	47	39	33	56	45	38	32	42	35	31	38	33	29	35	31	28	25		
9	55	43	35	30	53	41	34	29	38	32	28	35	30	26	33	28	25	23		
10	52	39	32	27	49	38	31	26	35	29	25	33	28	24	30	26	23	21		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39018	39018	39018
5°	38712	39044	39415
10°	38908	39202	39704
15°	38815	39199	39798
20°	38538	39460	40601
25°	38318	39957	42733
30°	38102	40768	43626
35°	37562	40885	43706
40°	36558	40813	40381
45°	35465	38963	30741
50°	34073	33239	25603
55°	31713	27972	18410
60°	27306	24006	13198
65°	23033	18544	12982
70°	19176	14592	12420
75°	16257	12589	11634
80°	13780	10925	10451
85°	10893	8985	5687

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 38963 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.1	2.8
10°-20°	666.0	8.2
20°-30°	1043.3	12.8
30°-40°	1287.0	15.8
40°-50°	1211.8	14.9
50°-60°	858.0	10.5
60°-70°	488.9	6.0
70°-80°	241.9	3.0
80°-90°	59.5	0.7
90°-100°	132.3	1.6
100°-110°	419.6	5.1
110°-120°	411.4	5.0
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	1.1
170°-180°	31.6	0.4
0°-30°	1939.4	23.8
0°-40°	3226.4	39.6
0°-60°	5296.2	65.0
0°-90°	6086.4	74.7
90°-120°	963.3	11.8
90°-150°	1783.9	21.9
90°-180°	2063.0	25.3
0°-180°	8149.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2417	2417	2417	2417	2417	
5°	2388	2431	2409	2414	2432	228
15°	2322	2355	2345	2368	2381	654
25°	2151	2206	2243	2334	2399	991
35°	1906	1958	2074	2192	2217	1188
45°	1553	1671	1706	1446	1346	1196
55°	1127	1194	994	749	654	994
65°	603	635	485	342	340	605
75°	261	288	202	189	186	282
85°	59	54	48	38	31	69
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°	2416.6	2416.6	2416.6	2416.6	2416.6
2.5°	2398.2	2432.2	2410.5	2414.7	2418.7
5°	2388.5	2431.0	2409.0	2414.5	2431.9
7.5°	2379.3	2422.8	2401.3	2410.5	2431.9
10°	2373.2	2410.7	2391.1	2404.2	2421.7
12.5°	2354.8	2390.3	2372.7	2389.9	2405.4
15°	2322.1	2354.6	2345.1	2368.4	2380.9
17.5°	2277.7	2317.1	2317.0	2350.0	2363.0
20°	2242.9	2290.4	2296.6	2338.0	2363.0
22.5°	2206.1	2261.6	2272.0	2334.3	2377.3
25°	2150.9	2205.9	2242.9	2333.8	2398.7
27.5°	2086.6	2141.0	2217.4	2319.2	2370.6
30°	2043.7	2096.1	2186.7	2292.5	2340.0
32.5°	1990.5	2045.0	2141.7	2255.6	2299.1
35°	1905.7	1958.2	2074.3	2192.4	2217.4
37.5°	1808.1	1867.6	1997.7	2063.6	2065.1
40°	1734.5	1812.0	1936.4	1948.4	1915.9
42.5°	1663.0	1762.4	1850.5	1796.7	1652.3
45°	1553.2	1670.6	1706.4	1446.2	1346.3
47.5°	1436.2	1552.1	1494.9	1212.9	1143.9
50°	1356.5	1466.4	1323.3	1084.2	1019.3
52.5°	1266.6	1364.5	1170.0	960.8	861.9
55°	1126.6	1194.0	993.7	748.9	654.0
57.5°	958.0	1005.4	849.6	562.1	455.7
60°	845.6	883.0	743.4	461.2	408.7
62.5°	743.4	776.8	633.0	400.6	382.2
65°	602.9	635.3	485.4	342.3	339.8
67.5°	479.7	515.2	372.5	298.8	295.8
70°	406.2	443.6	309.1	268.1	263.1
72.5°	344.9	380.3	262.1	235.5	232.5
75°	260.6	288.0	201.8	189.0	186.5
77.5°	189.0	206.5	150.2	143.5	141.0
80°	148.2	155.7	117.5	114.9	112.4
82.5°	111.4	108.9	88.9	86.2	81.7
85°	58.8	53.8	48.5	38.1	30.7
87.5°	18.4	18.6	8.8	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	22.32	23.41	23.04	24.14	25.01	18.72	19.80	19.44	20.54	21.41
	3H	23.44	24.40	24.17	25.15	26.05	19.84	20.81	20.58	21.55	22.46
	4H	23.79	24.70	24.54	25.45	26.37	20.32	21.23	21.07	21.98	22.90
	6H	24.02	24.85	24.78	25.62	26.55	20.67	21.51	21.44	22.27	23.20
	8H	24.07	24.87	24.85	25.65	26.58	20.76	21.56	21.54	22.34	23.28
	12H	24.09	24.85	24.87	25.63	26.59	20.79	21.55	21.57	22.32	23.28
4H	2H	22.46	23.37	23.22	24.12	25.04	19.46	20.37	20.22	21.13	22.04
	3H	23.79	24.54	24.56	25.33	26.27	20.73	21.49	21.50	22.28	23.21
	4H	24.27	24.95	25.06	25.74	26.71	21.30	21.98	22.08	22.77	23.73
	6H	24.62	25.21	25.42	26.02	27.00	21.75	22.34	22.55	23.15	24.12
	8H	24.72	25.27	25.52	26.08	27.06	21.87	22.42	22.68	23.23	24.22
	12H	24.77	25.26	25.59	26.09	27.08	21.91	22.41	22.74	23.24	24.22
8H	4H	24.31	24.86	25.11	25.67	26.65	21.59	22.14	22.39	22.95	23.93
	6H	24.75	25.20	25.58	26.05	27.04	22.14	22.59	22.97	23.45	24.43
	8H	24.90	25.31	25.75	26.16	27.16	22.33	22.73	23.17	23.58	24.58
	12H	25.00	25.36	25.84	26.20	27.25	22.41	22.77	23.25	23.61	24.66
12H	4H	24.28	24.77	25.10	25.60	26.59	21.60	22.10	22.43	22.93	23.92
	6H	24.73	25.14	25.58	25.99	26.99	22.19	22.60	23.04	23.45	24.45
	8H	24.91	25.27	25.76	26.11	27.17	22.41	22.77	23.25	23.61	24.66