

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: P854015

Luminaire Tested: SQ2-PH1-050U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854015
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-050U-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: -

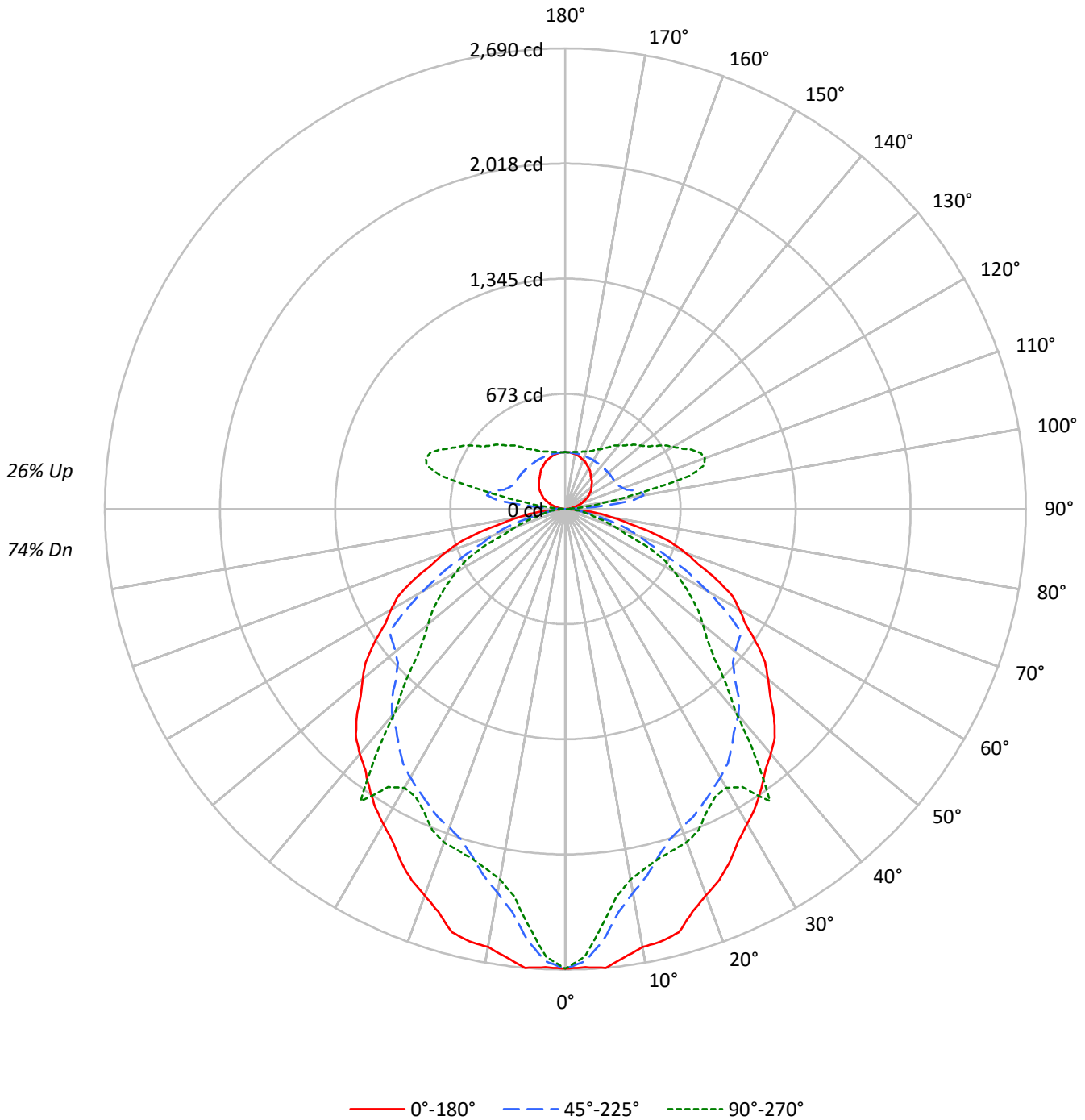
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8001.6 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
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	0	
RCR																						
0	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74				74
1	104	99	95	92	98	94	91	88	86	83	80	77	75	74	70	68	67				63	
2	95	87	81	75	90	83	77	73	75	71	67	68	65	62	62	59	57				53	
3	86	77	69	63	82	73	66	61	67	61	57	61	56	52	55	51	48				45	
4	79	68	60	54	75	65	58	52	59	53	48	54	49	45	49	45	42				39	
5	73	61	52	46	69	58	51	45	53	47	42	49	43	39	44	40	37				34	
6	67	55	46	40	64	52	45	39	48	42	37	44	39	35	40	36	32				30	
7	62	50	41	36	59	48	40	35	44	37	33	40	35	31	37	32	29				26	
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	34	29	26				24	
9	54	41	34	28	51	40	33	28	37	31	26	34	29	25	31	27	23				21	
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	25	21				19	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43348	43348	43348
5°	43598	40989	39623
10°	42594	37316	36018
15°	42786	35101	35313
20°	41259	34017	35598
25°	40504	33859	34769
30°	39625	33767	35054
35°	39324	33384	41086
40°	39359	33167	32574
45°	39372	31905	28056
50°	38821	32533	26309
55°	38328	35308	25242
60°	37946	30935	23676
65°	37280	25081	20592
70°	35212	21347	14715
75°	31391	16095	11154
80°	25653	10451	10451
85°	16098	9466	7095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39372 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.2	3.0
10°-20°	621.4	7.8
20°-30°	911.2	11.4
30°-40°	1103.4	13.8
40°-50°	1085.1	13.6
50°-60°	944.6	11.8
60°-70°	656.7	8.2
70°-80°	311.3	3.9
80°-90°	69.0	0.9
90°-100°	132.3	1.7
100°-110°	419.6	5.2
110°-120°	411.4	5.1
120°-130°	334.8	4.2
130°-140°	273.0	3.4
140°-150°	212.8	2.7
150°-160°	153.3	1.9
160°-170°	93.7	1.2
170°-180°	31.6	0.4
0°-30°	1768.8	22.1
0°-40°	2872.3	35.9
0°-60°	4901.9	61.3
0°-90°	5939.0	74.2
90°-120°	963.3	12.0
90°-150°	1783.9	22.3
90°-180°	2063.0	25.8
0°-180°	8001.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2685	2685	2685	2685	2685	
5°	2690	2688	2529	2450	2445	253
15°	2560	2280	2100	2085	2113	714
25°	2274	1934	1901	1959	1952	1046
35°	1995	1613	1694	1840	2084	1250
45°	1724	1277	1397	1446	1229	1325
55°	1362	994	1254	904	897	1216
65°	976	684	656	539	539	959
75°	503	348	258	184	179	533
85°	87	57	51	41	38	116
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°	2684.8	2684.8	2684.8	2684.8	2684.8
2.5°	2678.7	2706.7	2644.0	2619.4	2615.4
5°	2690.0	2687.5	2529.0	2449.7	2444.7
7.5°	2640.9	2563.5	2374.2	2286.8	2282.8
10°	2598.0	2480.6	2276.1	2196.9	2196.9
12.5°	2587.8	2402.4	2196.4	2137.9	2149.9
15°	2559.7	2279.9	2099.9	2085.1	2112.6
17.5°	2466.7	2165.5	2024.7	2058.2	2090.1
20°	2401.3	2104.1	1979.8	2041.8	2071.8
22.5°	2346.1	2044.9	1947.1	2014.9	2030.9
25°	2273.6	1933.9	1900.6	1959.2	1951.7
27.5°	2186.7	1832.0	1854.1	1890.0	1894.5
30°	2125.4	1770.7	1811.2	1847.7	1880.2
32.5°	2066.1	1699.5	1764.2	1850.7	1925.1
35°	1995.1	1613.0	1693.7	1839.7	2084.5
37.5°	1920.5	1510.9	1622.7	1745.5	1823.4
40°	1867.4	1437.8	1573.6	1725.4	1545.5
42.5°	1810.2	1380.5	1500.0	1696.0	1392.2
45°	1724.3	1277.2	1397.3	1446.1	1228.7
47.5°	1623.2	1197.0	1327.9	1205.9	1120.9
50°	1545.5	1143.4	1295.2	1102.3	1047.4
52.5°	1469.9	1087.7	1272.7	1016.9	979.9
55°	1361.6	994.4	1254.3	904.1	896.7
57.5°	1246.6	899.4	1109.2	806.0	819.0
60°	1175.1	837.9	958.0	748.1	733.2
62.5°	1099.5	778.3	816.9	674.6	659.6
65°	975.8	683.6	656.5	539.0	539.0
67.5°	839.9	585.2	531.9	441.1	381.1
70°	745.9	521.1	452.2	351.6	311.7
72.5°	645.8	453.0	370.4	288.1	242.2
75°	503.2	348.4	258.0	183.8	178.8
77.5°	363.8	250.9	173.7	136.4	136.9
80°	275.9	191.0	112.4	109.9	112.4
82.5°	194.1	131.2	83.8	87.4	87.9
85°	86.9	56.9	51.1	40.8	38.3
87.5°	18.4	16.6	10.8	10.8	10.8
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	22.42	23.54	23.14	24.27	25.15	21.09	22.21	21.81	22.95	23.83
	3H	24.46	25.47	25.20	26.21	27.12	22.14	23.15	22.88	23.89	24.81
	4H	25.21	26.15	25.96	26.91	27.83	22.37	23.32	23.12	24.07	25.00
	6H	25.70	26.58	26.47	27.34	28.28	22.53	23.40	23.29	24.17	25.10
	8H	25.84	26.67	26.61	27.45	28.39	22.57	23.40	23.34	24.18	25.12
	12H	25.89	26.68	26.67	27.46	28.43	22.57	23.36	23.35	24.14	25.11
4H	2H	22.82	23.77	23.58	24.53	25.45	21.76	22.71	22.52	23.47	24.39
	3H	24.95	25.74	25.72	26.53	27.47	22.97	23.75	23.73	24.55	25.49
	4H	25.78	26.49	26.56	27.29	28.26	23.25	23.97	24.04	24.76	25.73
	6H	26.38	27.00	27.18	27.81	28.79	23.48	24.09	24.28	24.91	25.89
	8H	26.56	27.13	27.36	27.95	28.93	23.54	24.11	24.34	24.93	25.92
	12H	26.64	27.15	27.46	27.99	28.98	23.56	24.08	24.38	24.91	25.90
8H	4H	25.82	26.39	26.62	27.21	28.20	23.49	24.07	24.29	24.88	25.87
	6H	26.48	26.96	27.31	27.81	28.80	23.77	24.25	24.61	25.10	26.09
	8H	26.71	27.13	27.55	27.98	28.99	23.88	24.30	24.72	25.15	26.16
	12H	26.83	27.21	27.68	28.05	29.11	23.93	24.30	24.78	25.15	26.21
12H	4H	25.78	26.30	26.61	27.14	28.13	23.50	24.02	24.32	24.85	25.84
	6H	26.46	26.88	27.30	27.73	28.74	23.80	24.23	24.65	25.08	26.09
	8H	26.70	27.07	27.55	27.92	28.98	23.93	24.30	24.78	25.15	26.21