

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: P854905

Luminaire Tested: SQ2-PR1-050U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854905
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-100D-830-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

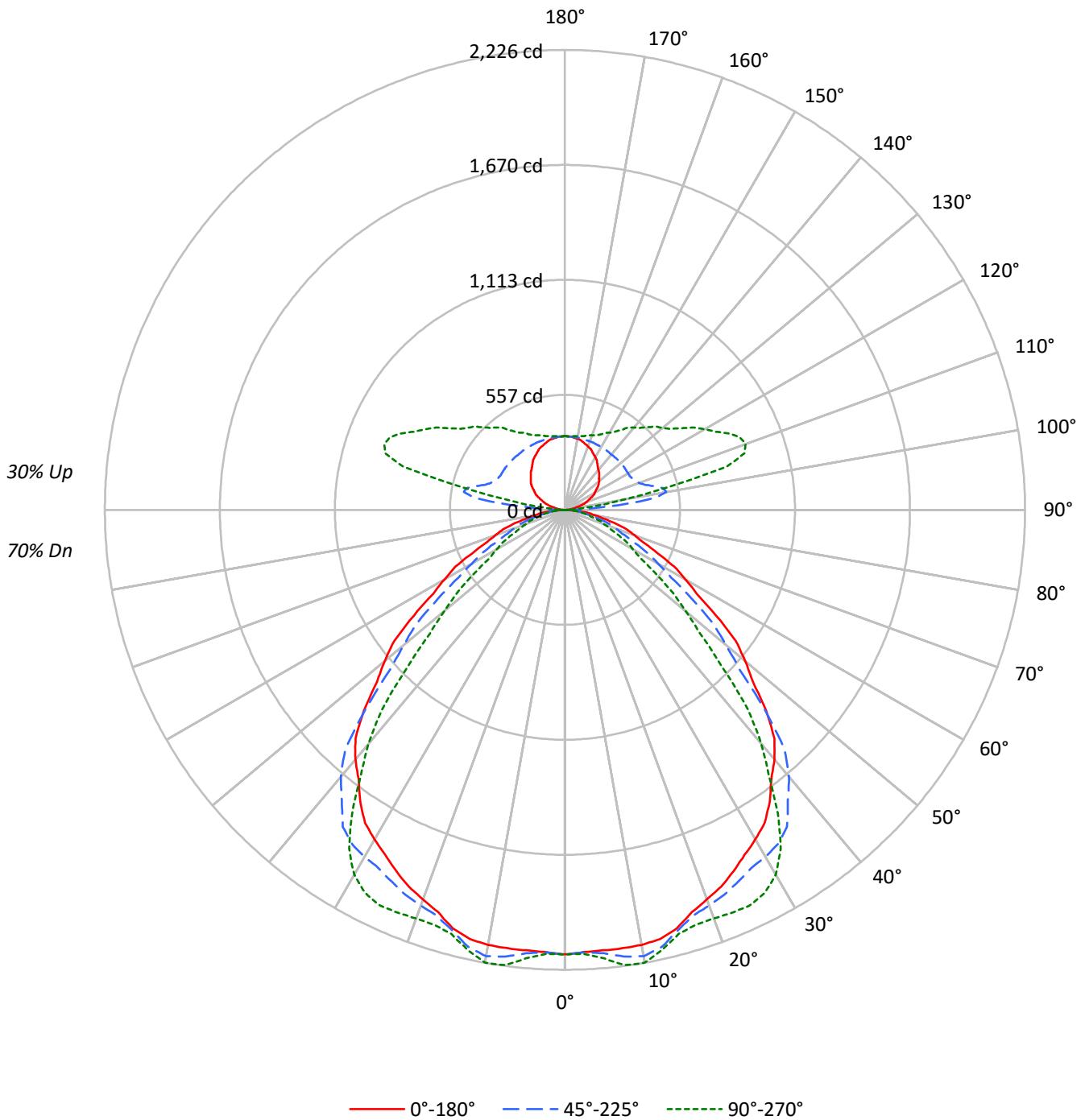
Lumens per Lamp: N/A
Luminaire Lumens: 7387.9 lumens
Efficiency: N/A
Efficacy: 141.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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				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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	75	75	75	70		
1	103	99	95	92	97	94	91	88	84	82	80	75	74	72	67	66	65	61		
2	95	88	82	77	89	83	78	73	75	71	67	67	64	61	60	58	56	52		
3	87	78	71	65	82	74	68	62	67	62	58	60	56	53	54	51	48	45		
4	80	69	62	56	75	66	59	54	60	54	50	54	50	46	49	45	42	39		
5	74	62	54	48	70	59	52	47	54	48	44	49	44	40	44	41	37	35		
6	68	56	48	42	64	54	46	41	49	43	38	45	40	36	40	36	33	31		
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	27		
8	59	47	39	33	56	45	37	33	41	35	31	37	32	29	34	30	27	25		
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	22		
10	51	39	32	27	49	38	31	26	35	29	25	32	27	24	29	25	22	20		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34735	34735	34735
5°	34689	34903	35329
10°	35056	35954	36493
15°	35042	35226	35519
20°	34477	35005	36173
25°	34379	35356	37661
30°	34342	36143	38024
35°	34016	36914	35400
40°	33232	35544	31154
45°	31444	31195	24638
50°	28587	25503	19113
55°	25123	20991	14877
60°	21739	16785	12248
65°	18770	13910	10724
70°	16872	12321	9522
75°	15458	10674	8752
80°	13454	8563	8563
85°	9744	7725	4057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 33992 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.8	2.8
10°-20°	601.4	8.1
20°-30°	929.6	12.6
30°-40°	1118.1	15.1
40°-50°	1004.0	13.6
50°-60°	672.6	9.1
60°-70°	391.2	5.3
70°-80°	200.9	2.7
80°-90°	50.0	0.7
90°-100°	141.9	1.9
100°-110°	450.1	6.1
110°-120°	441.3	6.0
120°-130°	359.1	4.9
130°-140°	292.8	4.0
140°-150°	228.3	3.1
150°-160°	164.5	2.2
160°-170°	100.5	1.4
170°-180°	33.9	0.5
0°-30°	1738.8	23.5
0°-40°	2856.9	38.7
0°-60°	4533.5	61.4
0°-90°	5175.6	70.1
90°-120°	1033.2	14.0
90°-150°	1913.4	25.9
90°-180°	2212.0	29.9
0°-180°	7387.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2151	2151	2151	2151	2151	
5°	2140	2177	2154	2158	2180	204
15°	2096	2182	2107	2114	2125	589
25°	1930	2007	1985	2058	2114	890
35°	1726	1741	1873	1837	1796	1076
45°	1377	1489	1366	1152	1079	1053
55°	892	927	746	576	528	802
65°	491	502	364	296	281	497
75°	248	241	171	145	140	263
85°	53	42	42	28	22	65
90°	0	1	3	3	3	3
95°	19	57	258	96	62	22
105°	78	110	444	845	810	83
115°	140	166	358	745	876	138
125°	194	217	353	584	688	173
135°	234	257	351	502	566	181
145°	273	294	351	433	472	171
155°	312	322	352	387	402	144
165°	339	343	353	366	370	96
175°	355	354	355	357	356	34
180°	356	356	356	356	356	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2151.3	2151.3	2151.3	2151.3	2151.3
2.5°	2142.6	2168.2	2144.3	2146.2	2151.3
5°	2140.3	2176.8	2153.5	2158.4	2179.8
7.5°	2139.9	2191.8	2180.7	2194.0	2222.4
10°	2138.2	2200.3	2193.0	2195.8	2225.9
12.5°	2127.6	2200.1	2166.7	2163.9	2180.2
15°	2096.4	2182.3	2107.4	2114.3	2124.9
17.5°	2041.6	2131.3	2060.0	2084.2	2105.3
20°	2006.6	2094.5	2037.3	2068.7	2105.3
22.5°	1975.0	2062.9	2016.2	2060.4	2110.5
25°	1929.8	2007.0	1984.6	2058.2	2114.0
27.5°	1882.4	1927.9	1954.3	2053.0	2092.0
30°	1842.0	1872.1	1938.6	2024.4	2039.5
32.5°	1798.2	1816.3	1917.6	1962.2	1943.0
35°	1725.8	1740.9	1872.8	1836.7	1796.0
37.5°	1639.9	1670.8	1772.4	1668.6	1621.9
40°	1576.7	1628.2	1686.4	1531.7	1478.1
42.5°	1499.6	1581.9	1572.4	1375.2	1309.6
45°	1377.1	1488.7	1366.2	1151.8	1079.0
47.5°	1232.9	1347.4	1146.9	955.5	887.2
50°	1138.1	1230.4	1015.3	836.0	760.9
52.5°	1041.7	1108.1	903.0	723.8	655.7
55°	892.5	926.8	745.7	575.7	528.5
57.5°	755.7	777.5	609.2	465.0	430.2
60°	673.2	688.2	519.8	407.3	379.3
62.5°	597.8	609.4	447.8	358.3	337.3
65°	491.3	501.9	364.1	295.7	280.7
67.5°	406.6	412.1	299.5	245.7	231.6
70°	357.4	359.5	261.0	212.4	201.7
72.5°	313.6	310.6	224.1	184.5	177.2
75°	247.8	241.4	171.1	144.6	140.3
77.5°	185.1	178.2	120.2	111.4	111.4
80°	144.7	136.1	92.1	92.1	92.1
82.5°	107.9	95.9	71.0	71.0	69.3
85°	52.6	41.9	41.7	28.4	21.9
87.5°	14.0	14.2	5.9	5.9	5.9
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.9	79.6	26.5	18.5
95°	19.0	57.4	257.7	95.5	61.6
97.5°	35.4	74.4	436.4	272.7	167.3
100°	47.0	84.3	497.4	453.5	294.6
102.5°	59.6	95.1	486.6	665.9	509.7
105°	78.5	110.2	443.7	845.0	810.0
107.5°	97.2	126.6	402.6	863.7	911.1
110°	109.8	138.3	382.0	842.2	929.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	122.3	149.0	370.4	805.1	916.4
115°	140.1	166.3	358.5	744.6	876.1
117.5°	157.3	182.3	353.8	686.4	818.9
120°	168.0	192.1	352.9	650.5	778.7
122.5°	178.8	202.0	352.9	621.6	741.0
125°	193.8	216.9	352.9	583.9	687.9
127.5°	207.0	229.2	352.9	554.6	643.3
130°	215.0	238.1	352.9	537.3	617.3
132.5°	223.2	246.1	352.0	523.7	595.7
135°	234.2	257.1	350.6	502.2	565.8
137.5°	244.9	269.0	350.4	481.7	538.4
140°	252.0	276.2	349.6	467.2	518.7
142.5°	261.1	284.2	350.4	452.8	500.8
145°	273.4	294.2	350.6	433.3	471.7
147.5°	285.7	303.5	350.8	416.1	447.5
150°	294.6	308.9	351.7	406.1	431.3
152.5°	301.8	314.3	351.7	398.0	418.8
155°	311.5	322.5	351.7	386.9	402.2
157.5°	321.8	329.2	352.9	380.0	390.5
160°	327.1	333.7	352.9	375.5	384.3
162.5°	332.5	337.4	352.9	371.9	378.0
165°	339.4	342.7	352.9	366.4	369.7
167.5°	346.0	346.9	354.0	362.6	365.4
170°	349.6	349.6	354.0	360.8	361.9
172.5°	351.3	352.2	354.0	359.0	359.2
175°	355.1	354.0	355.1	357.4	356.3
177.5°	356.3	355.4	355.4	357.2	355.4
180°	356.3	356.3	356.3	356.3	356.3



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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	20.81	21.82	21.58	22.61	23.57	17.53	18.55	18.31	19.33	20.29
	3H	22.05	22.96	22.84	23.76	24.74	18.61	19.51	19.40	20.31	21.30
	4H	22.51	23.36	23.32	24.17	25.17	19.02	19.87	19.82	20.67	21.67
	6H	22.84	23.62	23.65	24.43	25.45	19.36	20.14	20.17	20.95	21.97
	8H	22.92	23.67	23.75	24.50	25.51	19.45	20.19	20.27	21.02	22.04
	12H	22.96	23.67	23.79	24.49	25.53	19.46	20.17	20.29	20.99	22.03
4H	2H	20.91	21.76	21.72	22.56	23.56	18.12	18.97	18.93	19.78	20.78
	3H	22.39	23.09	23.21	23.94	24.95	19.40	20.10	20.22	20.95	21.96
	4H	22.99	23.63	23.83	24.47	25.51	19.91	20.55	20.75	21.39	22.43
	6H	23.45	24.00	24.30	24.87	25.91	20.36	20.91	21.21	21.77	22.82
	8H	23.59	24.10	24.44	24.96	26.02	20.48	21.00	21.34	21.85	22.91
	12H	23.65	24.11	24.52	24.99	26.05	20.51	20.97	21.38	21.85	22.91
8H	4H	23.03	23.54	23.88	24.40	25.46	20.23	20.74	21.08	21.60	22.66
	6H	23.58	24.01	24.46	24.91	25.97	20.77	21.19	21.65	22.10	23.16
	8H	23.78	24.16	24.67	25.05	26.13	20.96	21.33	21.85	22.23	23.30
	12H	23.89	24.22	24.78	25.11	26.24	21.02	21.36	21.92	22.24	23.37
12H	4H	22.99	23.45	23.87	24.33	25.40	20.25	20.71	21.13	21.59	22.66
	6H	23.57	23.95	24.46	24.84	25.92	20.83	21.21	21.72	22.10	23.18
	8H	23.79	24.12	24.68	25.01	26.14	21.04	21.38	21.94	22.26	23.39