

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: P854881

Luminaire Tested: SQ2-PW1-025U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854881
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-025U-100D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

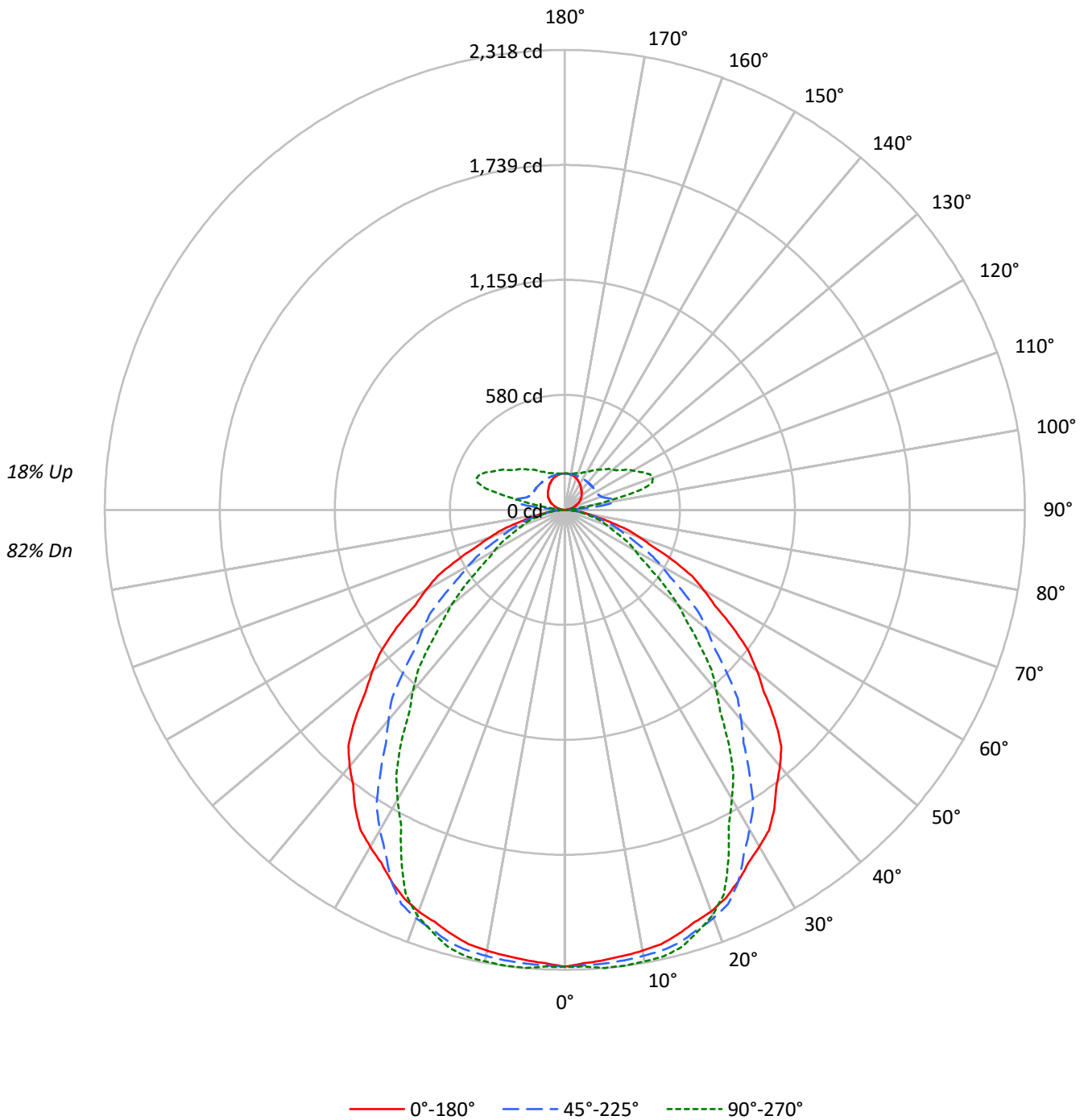
Lumens per Lamp: N/A
Luminaire Lumens: 6243.6 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82
1	106	102	98	95	101	98	94	91	90	88	85	83	81	80	77	75	74	71
2	97	90	84	79	93	87	81	77	80	76	72	74	71	68	69	66	64	61
3	89	80	73	67	85	77	71	65	72	66	62	67	62	59	62	58	55	53
4	82	72	64	58	79	69	62	56	64	58	54	60	55	51	56	52	49	46
5	76	64	56	50	73	62	55	49	58	52	47	54	49	45	51	46	43	40
6	70	58	50	44	67	56	49	43	53	46	42	50	44	40	46	42	38	36
7	65	53	45	39	63	51	44	39	48	42	37	45	40	36	43	38	34	32
8	61	49	41	35	59	47	40	35	44	38	33	42	36	32	39	35	31	29
9	57	45	37	32	55	43	36	31	41	35	30	39	33	29	37	32	28	26
10	54	41	34	29	51	40	33	29	38	32	28	36	31	27	34	29	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	37177	37177	37177
5°	36929	37212	37567
10°	36995	37428	37895
15°	36986	37683	38123
20°	37002	37641	37380
25°	36802	36840	34732
30°	36551	34711	31400
35°	36265	31943	28355
40°	35544	29118	25050
45°	34150	26188	21882
50°	31782	23410	18731
55°	29073	20681	15184
60°	26063	17990	13101
65°	22789	15499	11645
70°	18633	13770	10556
75°	14504	11896	9713
80°	10804	10200	8563
85°	7317	7725	4872

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 34150 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.3	3.5
10°-20°	635.3	10.2
20°-30°	934.9	15.0
30°-40°	1022.2	16.4
40°-50°	916.9	14.7
50°-60°	684.0	11.0
60°-70°	432.3	6.9
70°-80°	214.1	3.4
80°-90°	50.6	0.8
90°-100°	74.0	1.2
100°-110°	230.0	3.7
110°-120°	225.0	3.6
120°-130°	183.7	2.9
130°-140°	150.3	2.4
140°-150°	117.3	1.9
150°-160°	84.6	1.4
160°-170°	51.8	0.8
170°-180°	17.4	0.3
0°-30°	1789.4	28.7
0°-40°	2811.6	45.0
0°-60°	4412.6	70.7
0°-90°	5109.5	81.8
90°-120°	529.0	8.5
90°-150°	980.3	15.7
90°-180°	1134.0	18.2
0°-180°	6243.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2303	2303	2303	2303	2303	
5°	2278	2315	2296	2299	2318	217
15°	2213	2256	2254	2270	2281	625
25°	2066	2111	2068	1982	1950	951
35°	1840	1821	1621	1479	1439	1147
45°	1496	1376	1147	1003	958	1147
55°	1033	934	735	576	539	922
65°	596	547	406	326	305	591
75°	232	250	191	160	156	256
85°	40	50	42	28	26	50
90°	0	1	3	3	3	2
95°	10	30	136	50	33	12
105°	40	57	226	432	413	43
115°	72	85	184	379	444	71
125°	100	111	182	298	350	89
135°	120	133	180	257	289	93
145°	140	151	180	222	242	88
155°	160	166	182	200	206	74
165°	176	177	183	188	190	49
175°	183	183	183	184	183	17
180°	183	183	183	183	183	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2302.6	2302.6	2302.6	2302.6	2302.6
2.5°	2286.8	2316.0	2297.4	2299.3	2304.4
5°	2278.5	2315.0	2296.0	2298.7	2317.9
7.5°	2267.1	2303.9	2289.9	2297.8	2316.7
10°	2256.5	2295.2	2282.9	2294.2	2311.4
12.5°	2242.5	2282.9	2274.1	2287.2	2304.4
15°	2212.7	2255.6	2254.4	2270.0	2280.7
17.5°	2178.1	2220.9	2218.9	2223.0	2228.0
20°	2153.5	2196.4	2190.7	2175.5	2175.5
22.5°	2118.4	2164.7	2150.4	2108.4	2094.7
25°	2065.8	2110.8	2067.9	1981.7	1949.6
27.5°	2004.4	2040.8	1954.8	1832.3	1787.7
30°	1960.5	1988.3	1861.8	1727.1	1684.2
32.5°	1914.9	1925.6	1767.1	1627.0	1580.6
35°	1839.9	1820.6	1620.6	1479.3	1438.6
37.5°	1751.3	1693.8	1479.8	1331.9	1286.8
40°	1686.4	1604.9	1381.5	1233.6	1188.5
42.5°	1614.4	1512.3	1288.6	1140.6	1093.9
45°	1495.6	1375.5	1146.9	1003.3	958.3
47.5°	1361.9	1242.6	1014.4	875.5	836.8
50°	1265.3	1149.5	932.0	792.8	745.7
52.5°	1167.0	1063.4	851.3	708.2	643.9
55°	1032.8	934.3	734.7	575.9	539.4
57.5°	894.7	809.4	629.0	484.8	454.9
60°	807.1	732.0	557.1	435.7	405.7
62.5°	722.8	656.3	486.9	390.2	365.3
65°	596.5	547.1	405.7	326.3	304.8
67.5°	473.6	446.3	337.3	267.6	253.5
70°	394.7	386.1	291.7	234.4	223.6
72.5°	326.3	329.7	247.8	203.0	195.6
75°	232.5	249.6	190.7	160.0	155.7
77.5°	158.3	184.1	141.2	118.4	114.9
80°	116.2	142.0	109.7	92.1	92.1
82.5°	81.2	101.8	78.0	69.3	69.3
85°	39.5	50.2	41.7	28.5	26.3
87.5°	10.5	15.9	7.7	5.9	5.9
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.6	42.9	14.0	11.4
95°	10.1	29.8	135.7	50.1	32.6
97.5°	18.4	38.8	224.7	139.9	88.1
100°	24.6	43.3	253.4	237.0	158.1
102.5°	31.0	48.7	248.0	338.4	265.7
105°	40.4	56.8	226.5	432.2	412.6
107.5°	49.7	65.1	205.8	439.5	461.2
110°	56.1	71.3	195.0	429.2	471.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.3	76.8	189.7	410.6	464.8
115°	71.8	84.9	183.8	379.2	443.9
117.5°	81.0	92.9	181.4	349.3	415.4
120°	86.3	98.4	180.5	332.2	395.7
122.5°	91.7	103.8	181.4	317.7	375.9
125°	99.7	110.7	181.6	298.3	349.7
127.5°	106.3	117.5	181.6	283.7	327.5
130°	109.9	121.9	181.6	275.5	315.0
132.5°	114.3	126.4	180.7	268.3	305.2
135°	120.0	133.1	180.5	257.4	289.2
137.5°	126.4	138.5	180.5	246.6	275.5
140°	130.0	142.1	180.5	239.4	265.7
142.5°	134.5	145.7	180.5	232.1	255.8
145°	140.1	151.1	180.5	222.4	242.2
147.5°	146.9	156.3	181.6	213.4	229.0
150°	151.3	159.0	181.6	208.8	220.8
152.5°	154.9	161.7	181.6	204.3	214.6
155°	160.3	165.8	181.6	199.7	206.2
157.5°	165.6	169.8	181.6	195.6	199.8
160°	169.3	172.5	181.6	192.9	196.2
162.5°	172.0	174.3	181.6	191.1	193.5
165°	176.0	177.1	182.7	188.4	190.5
167.5°	178.4	178.6	181.6	186.8	187.9
170°	179.3	180.5	181.6	185.0	186.1
172.5°	181.1	181.4	182.5	184.1	184.3
175°	182.7	182.7	182.7	183.8	182.7
177.5°	182.7	182.7	182.7	182.7	182.7
180°	182.7	182.7	182.7	182.7	182.7



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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	22.21	23.38	22.84	24.02	24.75	18.70	19.86	19.33	20.50	21.24
	3H	23.56	24.60	24.20	25.25	26.02	19.92	20.97	20.57	21.62	22.39
	4H	23.94	24.93	24.61	25.59	26.37	20.39	21.37	21.05	22.03	22.81
	6H	24.16	25.07	24.84	25.74	26.54	20.72	21.62	21.40	22.30	23.09
	8H	24.20	25.06	24.90	25.76	26.56	20.80	21.66	21.49	22.36	23.16
	12H	24.21	25.03	24.91	25.72	26.54	20.82	21.64	21.52	22.33	23.16
4H	2H	22.35	23.33	23.02	24.00	24.78	19.42	20.40	20.09	21.06	21.84
	3H	23.92	24.74	24.61	25.44	26.24	20.83	21.64	21.51	22.35	23.15
	4H	24.44	25.18	25.14	25.88	26.72	21.39	22.12	22.09	22.83	23.66
	6H	24.79	25.43	25.51	26.16	27.00	21.81	22.44	22.53	23.17	24.02
	8H	24.87	25.47	25.60	26.20	27.05	21.92	22.51	22.64	23.24	24.09
	12H	24.90	25.44	25.65	26.19	27.05	21.96	22.49	22.70	23.24	24.10
8H	4H	24.50	25.10	25.23	25.82	26.68	21.74	22.33	22.46	23.06	23.91
	6H	24.95	25.44	25.70	26.21	27.07	22.25	22.74	23.01	23.51	24.37
	8H	25.10	25.53	25.86	26.31	27.18	22.42	22.85	23.19	23.63	24.50
	12H	25.18	25.56	25.94	26.32	27.25	22.49	22.88	23.26	23.64	24.57
12H	4H	24.48	25.01	25.22	25.76	26.62	21.77	22.30	22.51	23.05	23.91
	6H	24.94	25.38	25.71	26.15	27.02	22.32	22.76	23.09	23.53	24.40
	8H	25.12	25.50	25.88	26.26	27.20	22.52	22.90	23.29	23.66	24.60