

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: P855485

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855485
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-100D-830-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

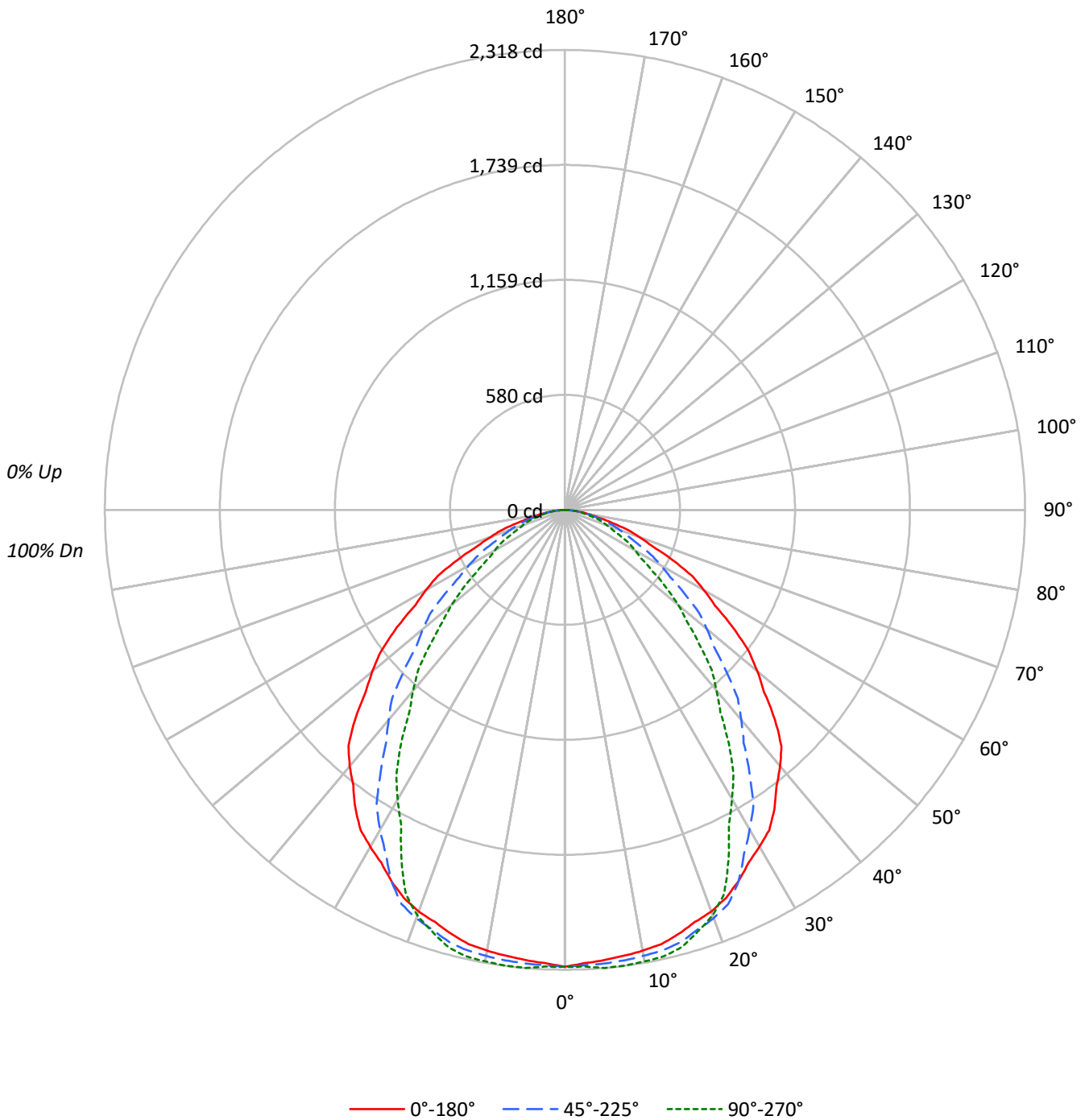
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5109.1 lumens
Efficiency: N/A
Efficacy: 135.9 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: Direct

Input Watts (W): 37.6
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64
4	86	75	67	61	84	74	66	61	71	65	60	69	63	59	67	62	58	56
5	80	68	59	53	78	67	59	53	65	58	52	63	57	52	61	56	51	49
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	46	41	39
8	64	52	44	38	63	51	43	38	50	43	38	48	42	37	47	42	37	35
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32
10	57	44	37	32	55	44	36	31	43	36	31	42	36	31	41	35	31	29

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	4.3
10°-20°	635.3	12.4
20°-30°	934.9	18.3
30°-40°	1022.2	20.0
40°-50°	916.9	17.9
50°-60°	684.0	13.4
60°-70°	432.3	8.5
70°-80°	214.1	4.2
80°-90°	50.1	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1789.4	35.0
0°-40°	2811.6	55.0
0°-60°	4412.6	86.4
0°-90°	5109.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5109.1	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	51
90°	0	0	0	0	0	



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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	15.7	7.0	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0

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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	23.53	25.04	23.90	25.35	25.66	20.02	21.52	20.38	21.84	22.15
	3H	24.90	26.25	25.28	26.58	26.94	21.27	22.62	21.65	22.94	23.31
	4H	25.30	26.57	25.70	26.91	27.29	21.75	23.01	22.15	23.36	23.73
	6H	25.54	26.70	25.95	27.07	27.46	22.09	23.26	22.51	23.62	24.02
	8H	25.59	26.70	26.01	27.08	27.49	22.19	23.29	22.61	23.68	24.08
	12H	25.60	26.66	26.03	27.05	27.47	22.22	23.28	22.65	23.66	24.09
4H	2H	23.71	24.97	24.11	25.32	25.70	20.78	22.04	21.18	22.39	22.77
	3H	25.31	26.36	25.72	26.76	27.16	22.22	23.26	22.63	23.66	24.06
	4H	25.84	26.78	26.28	27.20	27.64	22.79	23.73	23.22	24.14	24.58
	6H	26.21	27.02	26.67	27.47	27.93	23.23	24.04	23.68	24.48	24.94
	8H	26.30	27.06	26.76	27.50	27.97	23.34	24.10	23.81	24.55	25.02
	12H	26.34	27.02	26.82	27.50	27.97	23.39	24.07	23.88	24.55	25.02
8H	4H	25.93	26.69	26.39	27.13	27.60	23.16	23.92	23.62	24.37	24.83
	6H	26.38	27.01	26.88	27.50	27.98	23.69	24.32	24.18	24.81	25.28
	8H	26.53	27.09	27.04	27.60	28.09	23.85	24.42	24.37	24.93	25.41
	12H	26.62	27.12	27.13	27.61	28.18	23.94	24.44	24.45	24.93	25.50
12H	4H	25.91	26.59	26.40	27.07	27.54	23.20	23.88	23.69	24.36	24.83
	6H	26.38	26.94	26.89	27.45	27.94	23.75	24.32	24.27	24.83	25.32
	8H	26.56	27.06	27.08	27.56	28.12	23.97	24.47	24.48	24.96	25.52