

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: P854865

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854865
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-100U-100D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

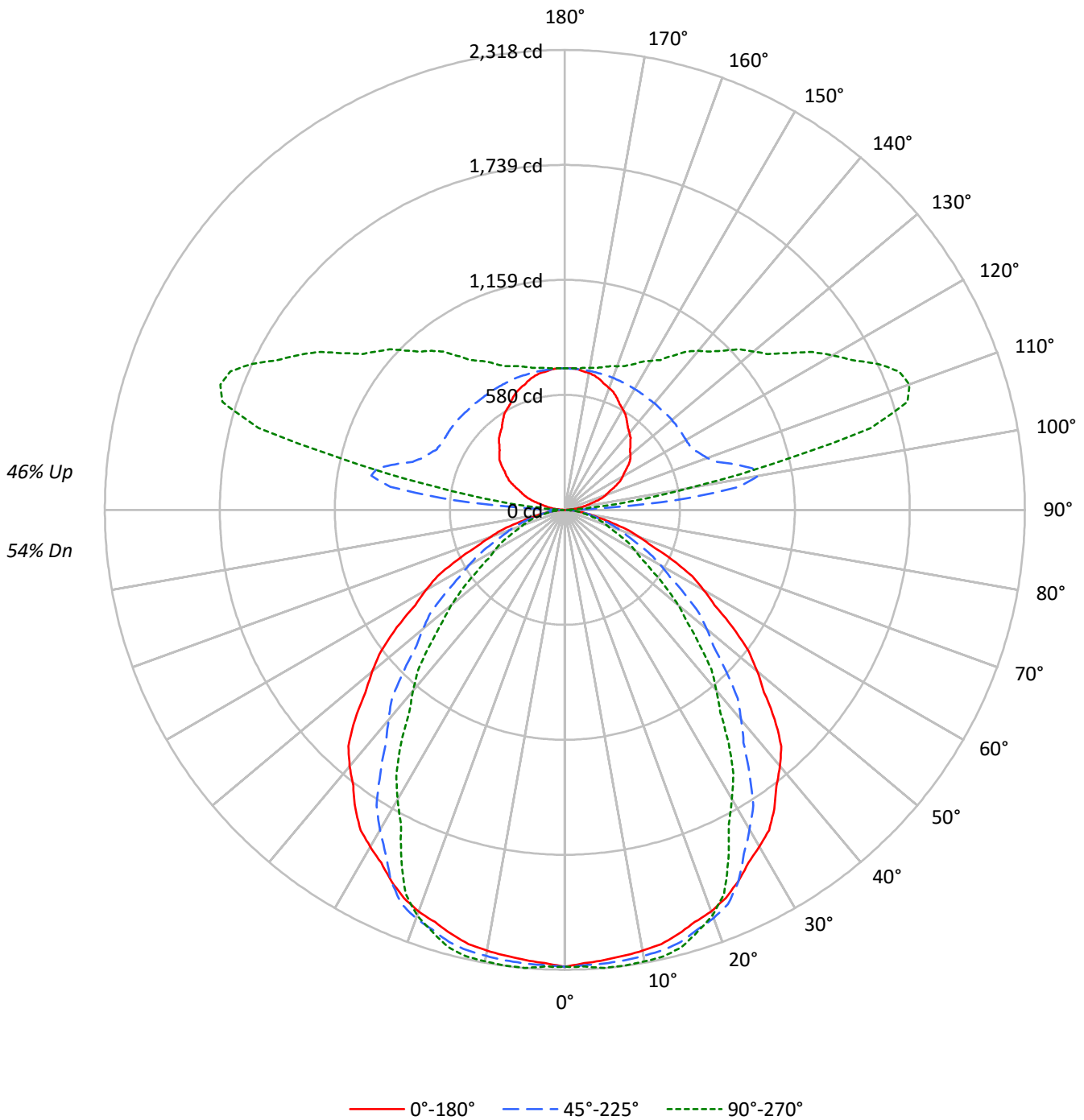
Lumens per Lamp: N/A
Luminaire Lumens: 9551.0 lumens
Efficiency: N/A
Efficacy: 136.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.2
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

TEST NUMBER: P854865

CATALOG NUMBER: SQ2-PW1-100U-100D-830-UNV-STD-W-4

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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	54		
1	99	95	91	88	92	88	85	82	76	73	71	64	63	61	53	52	51	46		
2	91	84	78	73	84	78	73	69	67	63	60	57	54	52	48	46	44	40		
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	40	38	34		
4	76	66	58	53	71	62	55	50	53	48	44	46	42	39	39	36	33	30		
5	70	59	51	45	65	55	48	43	48	43	38	41	37	34	35	32	30	26		
6	65	53	45	40	60	50	43	38	44	38	34	38	33	30	32	29	26	23		
7	60	48	41	35	56	45	38	33	40	34	30	34	30	27	29	26	24	21		
8	56	44	36	31	52	41	34	30	36	31	27	32	27	24	27	24	21	19		
9	52	40	33	28	49	38	31	27	33	28	24	29	25	22	25	22	19	17		
10	49	37	30	25	45	35	28	24	31	26	22	27	23	20	23	20	18	16		

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



TEST NUMBER: P854865

CATALOG NUMBER: SQ2-PW1-100U-100D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.3	2.3
10°-20°	635.3	6.7
20°-30°	934.9	9.8
30°-40°	1022.2	10.7
40°-50°	916.9	9.6
50°-60°	684.0	7.2
60°-70°	432.3	4.5
70°-80°	214.1	2.2
80°-90°	51.4	0.5
90°-100°	298.0	3.1
100°-110°	901.3	9.4
110°-120°	879.8	9.2
120°-130°	718.9	7.5
130°-140°	586.9	6.1
140°-150°	456.8	4.8
150°-160°	329.3	3.4
160°-170°	201.6	2.1
170°-180°	68.1	0.7
0°-30°	1789.4	18.7
0°-40°	2811.6	29.4
0°-60°	4412.6	46.2
0°-90°	5110.4	53.5
90°-120°	2079.1	21.8
90°-150°	3841.7	40.2
90°-180°	4441.0	46.5
0°-180°	9551.0	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	2	14	8	7	3
95°	37	117	562	208	131	44
105°	157	220	885	1681	1597	165
115°	279	332	716	1481	1740	276
125°	390	432	706	1170	1377	346
135°	467	516	701	1009	1135	362
145°	546	586	701	868	949	342
155°	622	642	706	778	808	286
165°	680	688	709	736	745	192
175°	711	711	712	718	716	67
180°	714	714	714	714	714	



TEST NUMBER: P854865

CATALOG NUMBER: SQ2-PW1-100U-100D-830-UNV-STD-W-4

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	16.1	9.7	6.8	6.6
90°	0.0	2.1	13.5	7.8	6.7
92.5°	12.6	50.7	181.9	60.4	43.4
95°	37.0	116.9	562.3	207.7	131.0
97.5°	71.5	148.8	886.2	586.5	357.1
100°	92.9	168.6	990.2	957.3	643.0
102.5°	117.1	190.1	968.7	1342.6	1070.4
105°	156.8	220.4	885.0	1680.6	1597.3
107.5°	194.5	255.1	804.2	1713.9	1810.4
110°	219.6	277.6	764.0	1671.9	1847.1



TEST NUMBER: P854865

CATALOG NUMBER: SQ2-PW1-100U-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	243.8	300.1	739.8	1601.2	1822.9
115°	278.9	332.5	715.8	1481.0	1739.6
117.5°	313.9	364.6	707.2	1368.5	1633.1
120°	337.2	385.3	704.5	1302.8	1557.0
122.5°	358.6	404.2	704.5	1245.1	1479.9
125°	389.8	432.5	705.6	1169.7	1376.7
127.5°	415.2	459.4	704.5	1112.7	1289.3
130°	431.2	477.2	704.5	1080.1	1240.0
132.5°	445.6	492.5	703.7	1050.3	1197.9
135°	467.1	516.4	701.2	1008.8	1134.7
137.5°	491.0	538.0	701.2	964.4	1081.1
140°	506.3	552.3	701.2	935.6	1046.2
142.5°	521.6	565.8	700.3	909.3	1005.8
145°	545.5	586.0	701.2	867.7	948.7
147.5°	569.5	603.9	702.6	833.4	895.7
150°	584.7	616.4	703.5	814.4	867.0
152.5°	599.0	627.3	704.3	798.0	841.0
155°	621.6	642.4	705.6	778.0	807.6
157.5°	641.4	658.3	707.0	763.3	783.9
160°	653.1	667.3	707.9	754.1	769.5
162.5°	664.7	675.4	708.8	746.1	758.8
165°	680.0	687.5	709.0	736.2	744.9
167.5°	692.9	696.8	710.4	728.4	732.1
170°	700.1	702.2	711.3	724.7	725.9
172.5°	704.5	705.9	711.3	721.1	721.4
175°	711.3	711.3	712.4	718.0	715.8
177.5°	714.5	713.5	712.6	715.2	713.5
180°	713.5	713.5	713.5	713.5	713.5



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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	19.94	20.79	20.87	21.74	22.96	16.42	17.28	17.36	18.22	19.45
	3H	21.26	22.02	22.21	22.98	24.22	17.63	18.39	18.58	19.35	20.59
	4H	21.63	22.35	22.60	23.31	24.57	18.08	18.80	19.04	19.76	21.01
	6H	21.84	22.50	22.81	23.46	24.73	18.39	19.05	19.36	20.02	21.29
	8H	21.87	22.50	22.85	23.48	24.75	18.47	19.10	19.45	20.08	21.35
	12H	21.87	22.46	22.85	23.44	24.73	18.48	19.08	19.46	20.05	21.34
4H	2H	20.04	20.76	21.01	21.72	22.98	17.11	17.83	18.07	18.79	20.04
	3H	21.59	22.18	22.56	23.17	24.44	18.49	19.09	19.47	20.08	21.35
	4H	22.09	22.64	23.08	23.62	24.92	19.04	19.58	20.02	20.57	21.86
	6H	22.43	22.89	23.42	23.90	25.19	19.44	19.91	20.44	20.92	22.21
	8H	22.50	22.94	23.50	23.94	25.25	19.55	19.99	20.55	20.99	22.29
	12H	22.52	22.91	23.53	23.93	25.24	19.57	19.96	20.59	20.98	22.29
8H	4H	22.13	22.57	23.13	23.57	24.88	19.37	19.80	20.36	20.80	22.11
	6H	22.57	22.93	23.59	23.97	25.27	19.87	20.23	20.89	21.27	22.58
	8H	22.71	23.03	23.74	24.06	25.38	20.03	20.35	21.07	21.38	22.70
	12H	22.78	23.06	23.81	24.08	25.45	20.10	20.37	21.13	21.40	22.77
12H	4H	22.09	22.48	23.11	23.50	24.81	19.38	19.77	20.40	20.79	22.10
	6H	22.56	22.88	23.59	23.91	25.23	19.94	20.25	20.97	21.28	22.61
	8H	22.72	23.00	23.75	24.02	25.39	20.12	20.40	21.16	21.42	22.79