

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: P854036

Luminaire Tested: SQ2-PH1-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854036
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

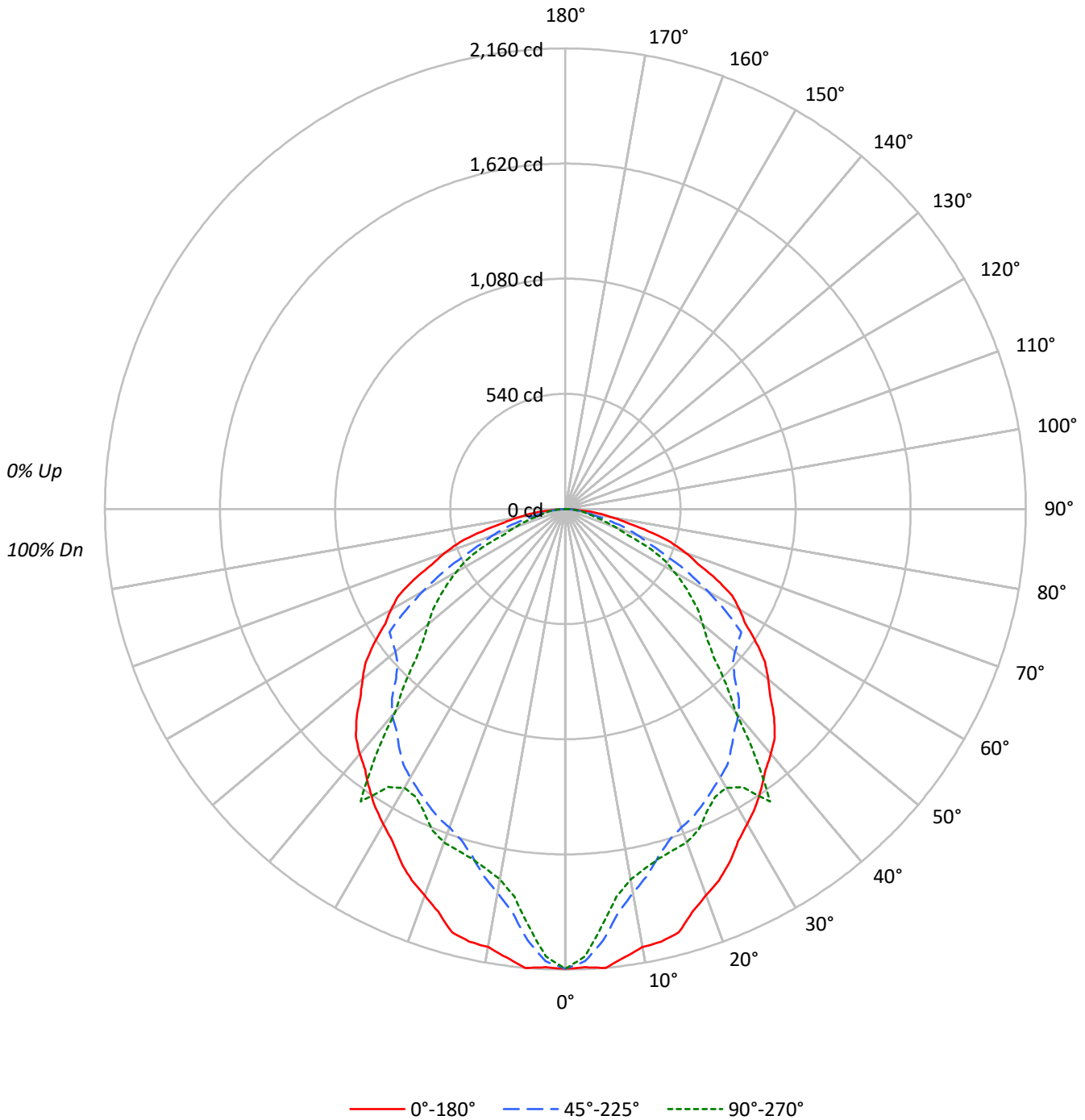
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4769.4 lumens
Efficiency: N/A
Efficacy: 126.8 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: 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

TEST NUMBER: P854036
CATALOG NUMBER: SQ2-PH1-100D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854036

CATALOG NUMBER: SQ2-PH1-100D-940-UNV-STD-W-4

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85	85	85	
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72	72	72	
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64	72	67	63	61	61	61	
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53	53	53	
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46	46	46	
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40	40	40	
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36	36	36	
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32	32	32	
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29	29	29	
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26	26	26	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34814	34814	34814
5°	35013	32919	31822
10°	34208	29970	28927
15°	34362	28189	28361
20°	33136	27319	28589
25°	32528	27193	27923
30°	31823	27119	28152
35°	31582	26810	32997
40°	31609	26637	26161
45°	31620	25624	22532
50°	31177	26128	21130
55°	30781	28355	20270
60°	30474	24845	19013
65°	29941	20145	16539
70°	28282	17141	11816
75°	25215	12926	8958
80°	20604	8396	8396
85°	12931	7595	5706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 31620 cd/sqm



TEST NUMBER: P854036

CATALOG NUMBER: SQ2-PH1-100D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.7	4.0
10°-20°	499.1	10.5
20°-30°	731.8	15.3
30°-40°	886.2	18.6
40°-50°	871.5	18.3
50°-60°	758.6	15.9
60°-70°	527.4	11.1
70°-80°	250.1	5.2
80°-90°	55.1	1.2
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°	1420.6	29.8
0°-40°	2306.7	48.4
0°-60°	3936.8	82.5
0°-90°	4769.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4769.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2156	2156	2156	2156	2156	
5°	2160	2158	2031	1967	1963	203
15°	2056	1831	1686	1675	1697	573
25°	1826	1553	1526	1573	1567	840
35°	1602	1295	1360	1478	1674	1004
45°	1385	1026	1122	1161	987	1064
55°	1094	799	1007	726	720	977
65°	784	549	527	433	433	770
75°	404	280	207	148	144	428
85°	70	46	41	33	31	95
90°	0	0	0	0	0	



TEST NUMBER: P854036

CATALOG NUMBER: SQ2-PH1-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2156.2	2156.2	2156.2	2156.2	2156.2
2.5°	2151.3	2173.8	2123.4	2103.6	2100.4
5°	2160.3	2158.3	2031.1	1967.4	1963.4
7.5°	2121.0	2058.8	1906.8	1836.5	1833.3
10°	2086.5	1992.2	1828.0	1764.4	1764.4
12.5°	2078.3	1929.4	1764.0	1717.0	1726.6
15°	2055.7	1831.0	1686.4	1674.6	1696.7
17.5°	1981.0	1739.1	1626.1	1652.9	1678.6
20°	1928.5	1689.8	1590.0	1639.8	1663.9
22.5°	1884.2	1642.3	1563.7	1618.2	1631.0
25°	1825.9	1553.1	1526.4	1573.4	1567.4
27.5°	1756.2	1471.3	1489.1	1517.9	1521.5
30°	1706.9	1422.1	1454.6	1483.9	1510.0
32.5°	1659.3	1364.9	1416.8	1486.3	1546.1
35°	1602.3	1295.4	1360.2	1477.5	1674.1
37.5°	1542.4	1213.4	1303.2	1401.8	1464.4
40°	1499.7	1154.7	1263.8	1385.7	1241.2
42.5°	1453.8	1108.7	1204.7	1362.1	1118.1
45°	1384.8	1025.8	1122.2	1161.3	986.8
47.5°	1303.6	961.4	1066.4	968.4	900.2
50°	1241.2	918.3	1040.2	885.3	841.2
52.5°	1180.5	873.6	1022.1	816.7	787.0
55°	1093.5	798.6	1007.3	726.1	720.1
57.5°	1001.2	722.3	890.8	647.3	657.7
60°	943.7	672.9	769.4	600.8	588.8
62.5°	883.0	625.0	656.1	541.8	529.7
65°	783.7	549.0	527.3	432.9	432.9
67.5°	674.6	470.0	427.1	354.2	306.1
70°	599.1	418.5	363.1	282.4	250.3
72.5°	518.6	363.8	297.5	231.4	194.5
75°	404.2	279.8	207.2	147.6	143.6
77.5°	292.1	201.5	139.5	109.6	110.0
80°	221.6	153.4	90.3	88.3	90.3
82.5°	155.9	105.4	67.3	70.2	70.6
85°	69.8	45.7	41.0	32.8	30.8
87.5°	14.8	13.2	8.2	8.2	8.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P854036

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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	23.50	25.09	23.87	25.41	25.72	22.18	23.77	22.54	24.08	24.39
	3H	25.58	27.01	25.96	27.34	27.70	23.26	24.69	23.64	25.02	25.38
	4H	26.34	27.69	26.74	28.04	28.41	23.51	24.85	23.91	25.20	25.58
	6H	26.86	28.11	27.28	28.47	28.87	23.69	24.93	24.10	25.30	25.69
	8H	27.01	28.20	27.43	28.58	28.98	23.74	24.93	24.17	25.32	25.72
	12H	27.08	28.21	27.51	28.59	29.02	23.76	24.90	24.19	25.28	25.71
4H	2H	23.96	25.31	24.36	25.66	26.03	22.90	24.25	23.30	24.59	24.97
	3H	26.13	27.25	26.54	27.65	28.05	24.15	25.27	24.56	25.66	26.06
	4H	26.98	27.99	27.41	28.40	28.84	24.45	25.46	24.88	25.87	26.31
	6H	27.60	28.48	28.06	28.92	29.38	24.70	25.58	25.15	26.02	26.48
	8H	27.79	28.61	28.25	29.05	29.52	24.77	25.59	25.23	26.04	26.50
	12H	27.89	28.63	28.37	29.10	29.57	24.81	25.55	25.29	26.02	26.49
8H	4H	27.05	27.87	27.51	28.31	28.78	24.72	25.54	25.18	25.99	26.45
	6H	27.73	28.41	28.23	28.90	29.38	25.02	25.70	25.52	26.19	26.67
	8H	27.96	28.57	28.48	29.08	29.57	25.13	25.74	25.64	26.25	26.74
	12H	28.11	28.65	28.62	29.14	29.70	25.21	25.75	25.72	26.24	26.80
12H	4H	27.04	27.77	27.52	28.25	28.72	24.75	25.49	25.23	25.96	26.43
	6H	27.71	28.32	28.22	28.83	29.32	25.06	25.67	25.57	26.18	26.66
	8H	27.98	28.51	28.49	29.01	29.57	25.21	25.75	25.72	26.24	26.80