

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: P845603

Luminaire Tested: SQ2R-PP3-100D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PP3-100D-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PRISM CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

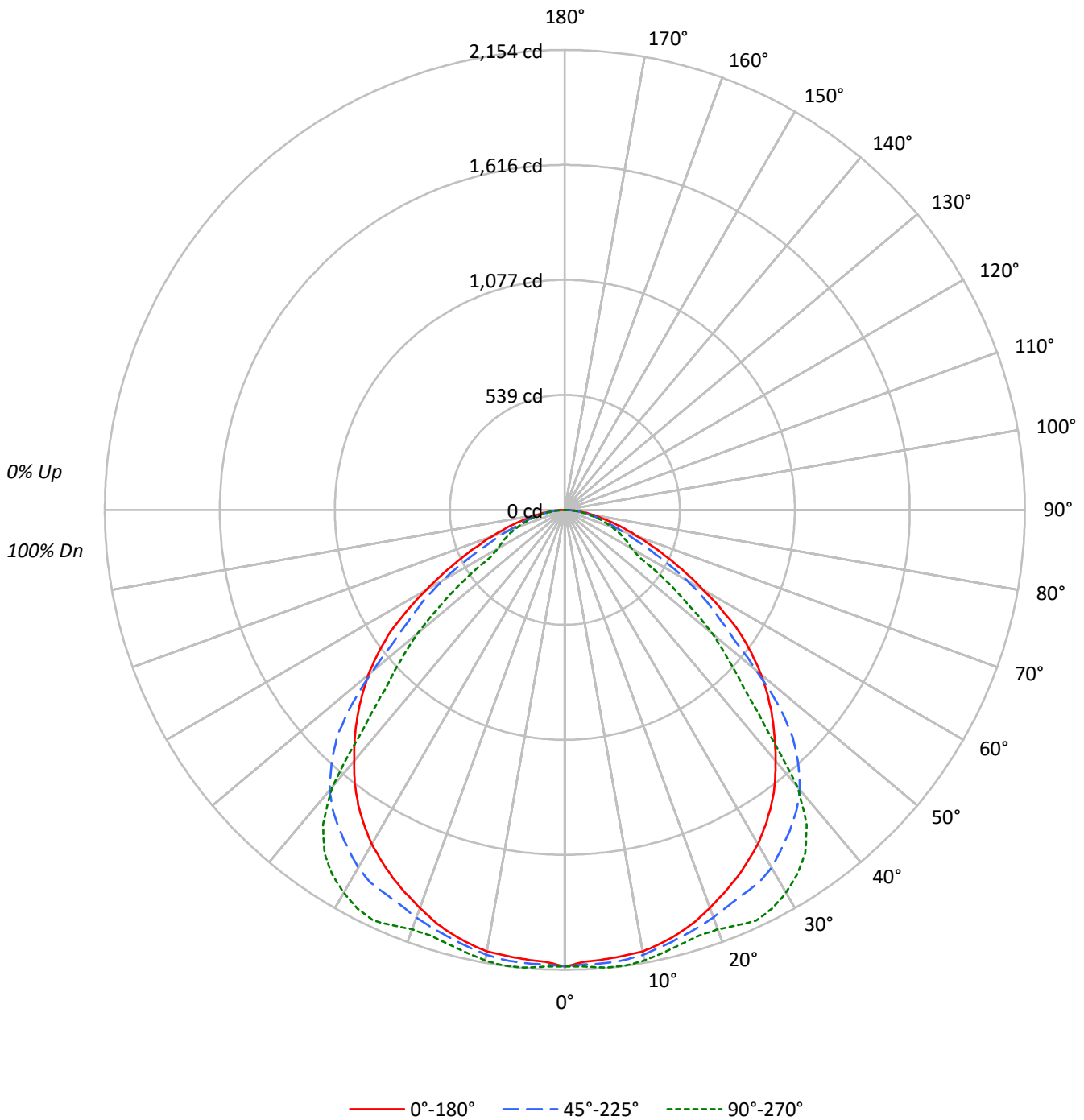
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5386.2 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.41 / 1.4
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: 0.9969
Total Harmonic Distortion (THDi): 0.066
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
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	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	107	104	100	97	99	97	94	96	93	91	92	90	89	87				
2	101	94	88	82	99	92	86	82	88	84	80	85	81	78	82	79	76	74				
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64				
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	61	57	55				
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	51	49				
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43				
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38				
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34				
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31				
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34525	34525	34525
5°	34253	34546	34877
10°	34428	34687	35131
15°	34345	34684	35214
20°	34099	34916	35924
25°	33905	35356	37812
30°	33713	36074	38602
35°	33236	36177	38672
40°	32349	36113	35732
45°	31380	34477	27199
50°	30150	29411	22654
55°	28059	24752	16290
60°	24161	21241	11680
65°	20378	16409	11484
70°	16966	12911	10990
75°	14385	11142	10293
80°	12190	9670	9252
85°	9633	7947	5020

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 34477 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.7	3.8
10°-20°	589.4	10.9
20°-30°	923.8	17.2
30°-40°	1140.6	21.2
40°-50°	1073.8	19.9
50°-60°	759.1	14.1
60°-70°	431.2	8.0
70°-80°	213.6	4.0
80°-90°	50.9	0.9
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°	1716.9	31.9
0°-40°	2857.5	53.1
0°-60°	4690.4	87.1
0°-90°	5386.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5386.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2138	2138	2138	2138	2138	
5°	2113	2152	2132	2136	2152	201
15°	2055	2084	2075	2095	2107	579
25°	1903	1953	1985	2064	2122	877
35°	1686	1734	1835	1939	1962	1053
45°	1374	1480	1510	1282	1191	1059
55°	997	1058	879	664	579	881
65°	533	563	430	303	301	534
75°	231	255	179	167	165	249
85°	52	48	43	34	27	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2138.3	2138.3	2138.3	2138.3	2138.3
2.5°	2118.0	2156.4	2131.5	2136.1	2140.6
5°	2113.4	2151.9	2131.5	2136.1	2151.9
7.5°	2106.7	2147.4	2127.0	2133.8	2154.1
10°	2099.9	2133.8	2115.7	2127.0	2142.8
12.5°	2079.5	2111.2	2095.4	2111.2	2124.7
15°	2054.7	2084.1	2075.0	2095.4	2106.7
17.5°	2023.0	2056.9	2054.7	2081.8	2090.8
20°	1984.6	2027.6	2032.1	2068.2	2090.8
22.5°	1943.9	1995.9	2004.9	2063.7	2106.7
25°	1903.2	1953.0	1984.6	2063.7	2122.5
27.5°	1855.8	1905.5	1968.8	2056.9	2104.4
30°	1808.3	1855.8	1934.9	2027.6	2070.5
32.5°	1749.5	1799.3	1885.1	1986.9	2025.3
35°	1686.2	1733.7	1835.4	1939.4	1962.0
37.5°	1616.2	1665.9	1781.2	1851.2	1860.3
40°	1534.8	1604.9	1713.4	1724.7	1695.3
42.5°	1455.7	1550.6	1618.4	1559.7	1403.7
45°	1374.3	1480.5	1509.9	1281.6	1191.2
47.5°	1288.4	1394.6	1360.7	1103.1	1039.8
50°	1200.3	1299.7	1170.9	960.7	901.9
52.5°	1100.8	1186.7	1001.3	825.0	727.8
55°	996.8	1057.9	879.3	664.5	578.7
57.5°	872.5	917.7	775.3	522.1	413.6
60°	748.2	782.1	657.8	409.1	361.7
62.5°	635.2	664.5	535.7	341.3	332.3
65°	533.4	562.8	429.5	302.9	300.6
67.5°	440.8	472.4	343.6	271.2	269.0
70°	359.4	393.3	273.5	237.3	232.8
72.5°	291.6	323.2	221.5	201.2	198.9
75°	230.6	255.4	178.6	167.3	165.0
77.5°	176.3	194.4	140.1	133.4	131.1
80°	131.1	137.9	104.0	101.7	99.5
82.5°	90.4	85.9	72.3	70.1	65.6
85°	52.0	47.5	42.9	33.9	27.1
87.5°	20.3	20.3	9.0	6.8	6.8
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	23.75	25.27	24.12	25.59	25.90	20.16	21.68	20.52	21.99	22.31
	3H	24.90	26.26	25.28	26.59	26.95	21.31	22.67	21.68	23.00	23.36
	4H	25.27	26.55	25.67	26.89	27.27	21.80	23.07	22.20	23.42	23.80
	6H	25.52	26.69	25.93	27.06	27.45	22.17	23.35	22.59	23.72	24.11
	8H	25.58	26.70	26.01	27.09	27.49	22.28	23.40	22.70	23.79	24.19
	12H	25.62	26.69	26.05	27.07	27.50	22.31	23.38	22.74	23.77	24.20
4H	2H	23.94	25.22	24.34	25.56	25.94	20.95	22.22	21.35	22.57	22.95
	3H	25.31	26.36	25.72	26.76	27.16	22.25	23.31	22.66	23.71	24.11
	4H	25.81	26.75	26.24	27.17	27.61	22.83	23.78	23.27	24.19	24.63
	6H	26.18	27.00	26.64	27.44	27.90	23.31	24.13	23.76	24.57	25.03
	8H	26.28	27.05	26.75	27.50	27.96	23.44	24.21	23.90	24.65	25.12
	12H	26.35	27.04	26.83	27.51	27.99	23.50	24.18	23.98	24.66	25.13
8H	4H	25.87	26.64	26.34	27.08	27.55	23.15	23.92	23.61	24.36	24.83
	6H	26.33	26.96	26.82	27.45	27.93	23.72	24.35	24.21	24.84	25.32
	8H	26.48	27.05	27.00	27.56	28.05	23.90	24.48	24.42	24.99	25.47
	12H	26.59	27.10	27.10	27.59	28.16	24.00	24.51	24.51	25.00	25.57
12H	4H	25.86	26.55	26.34	27.02	27.50	23.19	23.87	23.67	24.35	24.82
	6H	26.31	26.89	26.83	27.40	27.88	23.77	24.34	24.28	24.85	25.34
	8H	26.51	27.02	27.02	27.51	28.08	24.01	24.51	24.52	25.00	25.57