

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: P845582

Luminaire Tested: SQ2R-PH1-100D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PH1-100D-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

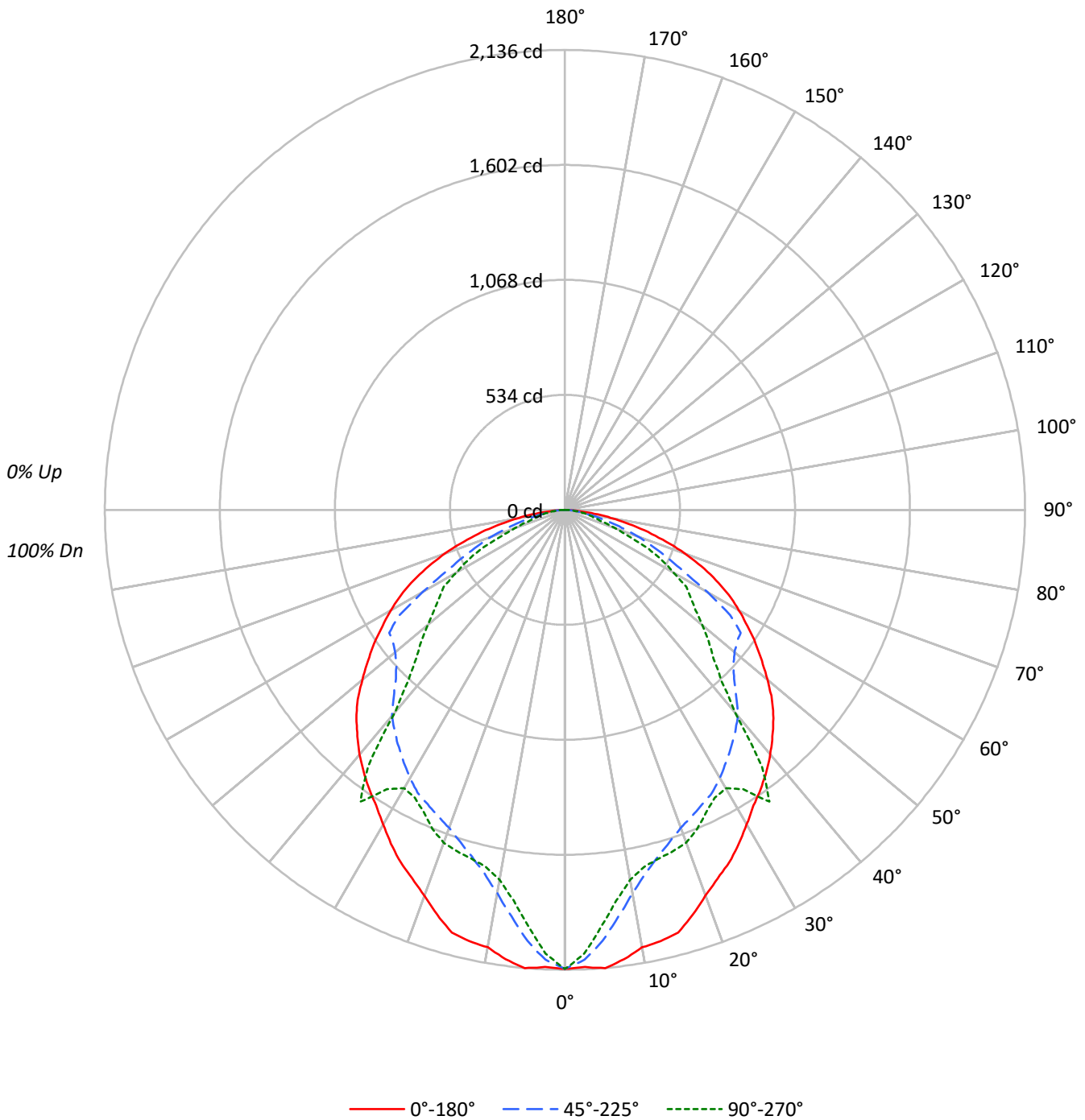
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4710.1 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.03 / 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: 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34421	34421	34421
5°	34619	32548	31464
10°	33823	29632	28601
15°	33974	27871	28042
20°	32763	27012	28266
25°	32163	26886	27610
30°	31465	26813	27835
35°	31227	26509	32625
40°	31253	26338	25866
45°	31264	25336	22279
50°	30825	25832	20891
55°	30435	28037	20042
60°	30131	24564	18800
65°	29605	19916	16351
70°	27961	16947	11684
75°	24928	12782	8858
80°	20372	8303	8303
85°	12782	7521	5632

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 31264 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.1	4.0
10°-20°	493.0	10.5
20°-30°	723.1	15.4
30°-40°	876.5	18.6
40°-50°	861.0	18.3
50°-60°	750.1	15.9
60°-70°	520.0	11.0
70°-80°	245.4	5.2
80°-90°	52.8	1.1
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°	1404.2	29.8
0°-40°	2280.7	48.4
0°-60°	3891.8	82.6
0°-90°	4710.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4710.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2132	2132	2132	2132	2132	
5°	2136	2134	2008	1945	1941	201
15°	2032	1805	1667	1655	1678	568
25°	1805	1530	1509	1556	1550	831
35°	1584	1274	1345	1456	1655	992
45°	1369	1006	1110	1152	976	1053
55°	1081	783	996	718	712	966
65°	775	538	521	428	428	762
75°	400	274	205	146	142	423
85°	69	45	41	32	30	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2131.9	2131.9	2131.9	2131.9	2131.9
2.5°	2125.9	2154.3	2091.4	2067.0	2063.0
5°	2136.0	2134.0	2008.2	1945.3	1941.3
7.5°	2105.6	2050.8	1904.8	1833.8	1829.7
10°	2063.0	1967.6	1807.4	1744.5	1744.5
12.5°	2052.8	1888.5	1728.3	1685.7	1697.8
15°	2032.5	1805.4	1667.4	1655.2	1677.6
17.5°	1971.7	1726.2	1616.7	1637.0	1663.4
20°	1906.8	1665.4	1572.1	1620.8	1645.1
22.5°	1852.0	1606.6	1539.6	1594.4	1604.5
25°	1805.4	1529.5	1509.2	1555.9	1549.8
27.5°	1748.6	1460.5	1480.8	1509.2	1507.2
30°	1687.7	1399.7	1438.2	1466.6	1493.0
32.5°	1628.9	1328.7	1391.5	1468.6	1537.6
35°	1584.3	1273.9	1344.9	1456.5	1655.2
37.5°	1535.6	1207.0	1298.2	1387.5	1503.1
40°	1482.8	1133.9	1249.6	1373.3	1227.2
42.5°	1426.0	1077.1	1176.5	1346.9	1075.1
45°	1369.2	1006.1	1109.6	1152.2	975.7
47.5°	1304.3	953.4	1060.9	979.8	904.7
50°	1227.2	900.7	1028.4	876.3	831.7
52.5°	1152.2	845.9	1006.1	791.1	764.7
55°	1081.2	783.0	996.0	718.1	712.0
57.5°	1004.1	720.1	910.8	651.1	667.4
60°	933.1	659.3	760.7	594.3	582.2
62.5°	858.1	600.4	620.7	521.3	509.2
65°	774.9	537.6	521.3	428.0	428.0
67.5°	685.6	472.6	438.2	369.2	316.4
70°	592.3	409.8	359.0	279.9	247.5
72.5°	492.9	342.8	277.9	217.0	178.5
75°	399.6	273.8	204.9	146.1	142.0
77.5°	306.3	208.9	150.1	113.6	113.6
80°	219.1	150.1	89.3	87.2	89.3
82.5°	137.9	91.3	60.9	64.9	64.9
85°	69.0	44.6	40.6	32.5	30.4
87.5°	18.3	16.2	10.1	10.1	10.1
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	23.43	25.02	23.80	25.34	25.65	22.14	23.73	22.51	24.05	24.36
	3H	25.51	26.94	25.89	27.27	27.63	23.23	24.66	23.61	24.99	25.35
	4H	26.28	27.62	26.68	27.97	28.35	23.48	24.82	23.88	25.17	25.55
	6H	26.80	28.05	27.21	28.41	28.80	23.66	24.90	24.07	25.26	25.66
	8H	26.95	28.13	27.37	28.52	28.92	23.71	24.89	24.13	25.28	25.68
	12H	27.02	28.15	27.45	28.53	28.96	23.73	24.86	24.16	25.25	25.68
4H	2H	23.90	25.24	24.30	25.59	25.97	22.87	24.21	23.27	24.56	24.94
	3H	26.07	27.19	26.48	27.59	27.99	24.12	25.23	24.52	25.63	26.03
	4H	26.91	27.92	27.35	28.34	28.77	24.42	25.43	24.85	25.84	26.28
	6H	27.54	28.42	28.00	28.86	29.32	24.67	25.54	25.12	25.99	26.44
	8H	27.73	28.55	28.19	28.99	29.45	24.74	25.56	25.20	26.00	26.47
	12H	27.83	28.56	28.31	29.04	29.51	24.78	25.52	25.26	25.99	26.46
8H	4H	26.99	27.81	27.45	28.25	28.72	24.69	25.51	25.15	25.95	26.42
	6H	27.67	28.35	28.16	28.84	29.31	24.99	25.67	25.49	26.16	26.63
	8H	27.90	28.51	28.41	29.02	29.50	25.10	25.71	25.61	26.21	26.70
	12H	28.05	28.58	28.56	29.07	29.64	25.18	25.71	25.68	26.20	26.77
12H	4H	26.97	27.71	27.46	28.18	28.65	24.72	25.45	25.20	25.93	26.40
	6H	27.65	28.26	28.16	28.76	29.25	25.03	25.63	25.54	26.14	26.63
	8H	27.92	28.45	28.42	28.94	29.50	25.17	25.71	25.68	26.20	26.76