

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: P845588

Luminaire Tested: SQ2R-PH1-125D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845588
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-PH1-125D-940-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS
1250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

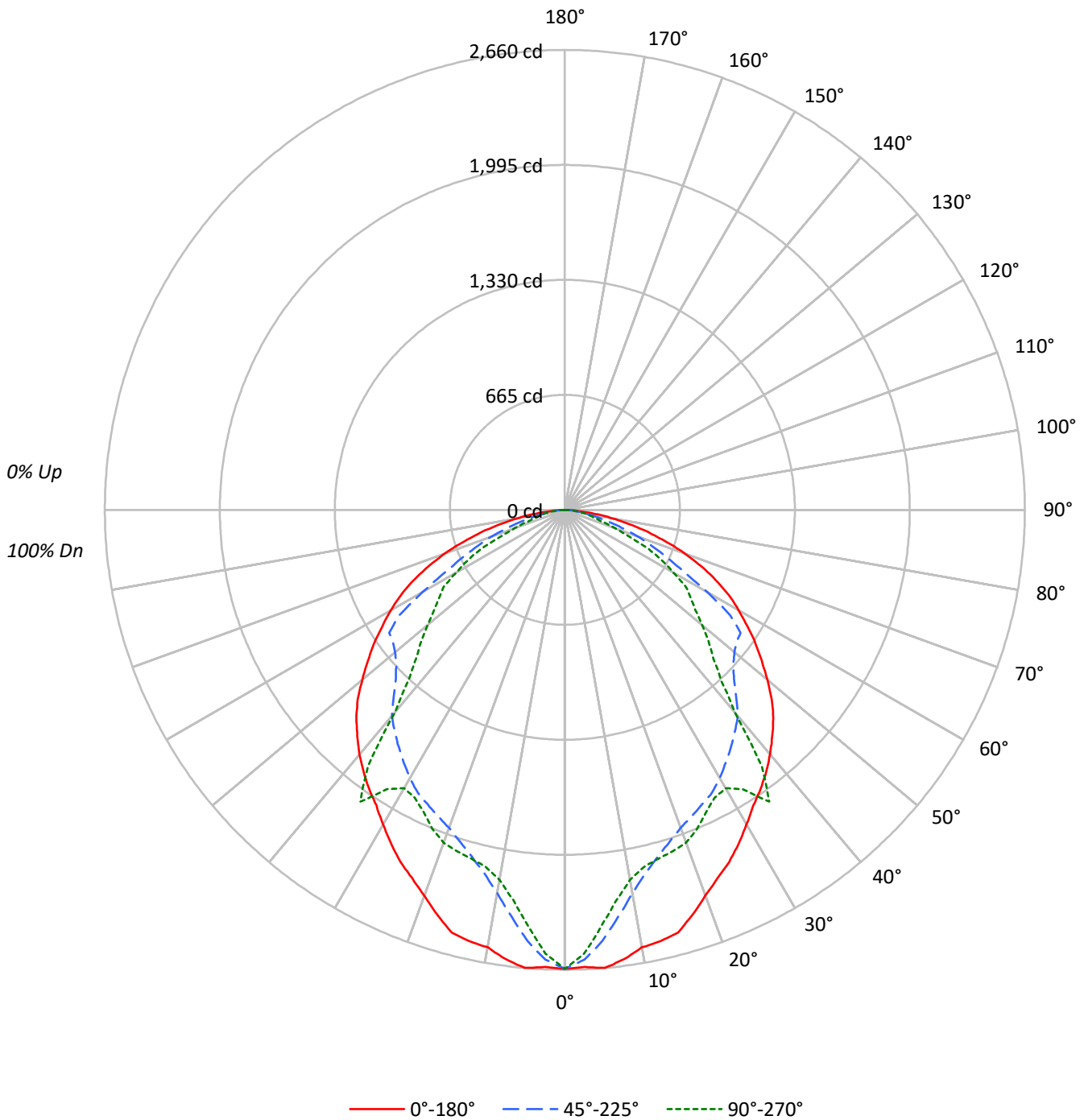
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5864.8 lumens
Efficiency: N/A
Efficacy: 119.2 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): 49.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9979
Total Harmonic Distortion (THDi): 0.0523
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	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°	42861	42861	42861
5°	43107	40527	39177
10°	42114	36897	35613
15°	42303	34705	34915
20°	40794	33634	35196
25°	40046	33478	34378
30°	39180	33387	34658
35°	38881	33007	40623
40°	38914	32794	32208
45°	38929	31547	27741
50°	38384	32167	26013
55°	37895	34911	24957
60°	37520	30587	23408
65°	36860	24798	20359
70°	34815	21106	14545
75°	31042	15914	11029
80°	25365	10330	10330
85°	15913	9355	7021

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 38929 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.2	4.0
10°-20°	613.9	10.5
20°-30°	900.4	15.4
30°-40°	1091.3	18.6
40°-50°	1072.1	18.3
50°-60°	934.0	15.9
60°-70°	647.5	11.0
70°-80°	305.6	5.2
80°-90°	65.8	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°	1748.5	29.8
0°-40°	2839.8	48.4
0°-60°	4845.9	82.6
0°-90°	5864.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5864.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2655	2655	2655	2655	2655	
5°	2660	2657	2500	2422	2417	250
15°	2531	2248	2076	2061	2089	707
25°	2248	1904	1879	1937	1930	1034
35°	1973	1586	1675	1814	2061	1236
45°	1705	1253	1382	1435	1215	1312
55°	1346	975	1240	894	887	1203
65°	965	669	649	533	533	949
75°	498	341	255	182	177	527
85°	86	56	50	40	38	113
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2654.6	2654.6	2654.6	2654.6	2654.6
2.5°	2647.0	2682.4	2604.1	2573.8	2568.7
5°	2659.7	2657.1	2500.5	2422.2	2417.2
7.5°	2621.8	2553.6	2371.7	2283.3	2278.3
10°	2568.7	2450.0	2250.5	2172.2	2172.2
12.5°	2556.1	2351.5	2152.0	2098.9	2114.1
15°	2530.8	2247.9	2076.2	2061.0	2088.8
17.5°	2455.1	2149.4	2013.0	2038.3	2071.1
20°	2374.2	2073.7	1957.5	2018.1	2048.4
22.5°	2306.0	2000.4	1917.1	1985.3	1997.9
25°	2247.9	1904.4	1879.2	1937.3	1929.7
27.5°	2177.2	1818.6	1843.8	1879.2	1876.7
30°	2101.5	1742.8	1790.8	1826.1	1859.0
32.5°	2028.2	1654.4	1732.7	1828.7	1914.5
35°	1972.6	1586.2	1674.6	1813.5	2061.0
37.5°	1912.0	1502.8	1616.5	1727.6	1871.6
40°	1846.3	1411.9	1555.9	1710.0	1528.1
42.5°	1775.6	1341.2	1465.0	1677.1	1338.7
45°	1704.9	1252.8	1381.6	1434.6	1214.9
47.5°	1624.1	1187.1	1321.0	1220.0	1126.5
50°	1528.1	1121.4	1280.6	1091.1	1035.6
52.5°	1434.6	1053.3	1252.8	985.1	952.2
55°	1346.2	975.0	1240.2	894.1	886.6
57.5°	1250.3	896.7	1134.1	810.8	831.0
60°	1161.9	820.9	947.2	740.1	724.9
62.5°	1068.4	747.6	772.9	649.1	634.0
65°	964.8	669.3	649.1	532.9	532.9
67.5°	853.7	588.5	545.6	459.7	394.0
70°	737.5	510.2	447.1	348.6	308.1
72.5°	613.8	426.9	346.0	270.3	222.3
75°	497.6	341.0	255.1	181.9	176.8
77.5°	381.4	260.2	186.9	141.4	141.4
80°	272.8	186.9	111.1	108.6	111.1
82.5°	171.8	113.7	75.8	80.8	80.8
85°	85.9	55.6	50.5	40.4	37.9
87.5°	22.7	20.2	12.6	12.6	12.6
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	24.19	25.78	24.56	26.10	26.41	22.91	24.50	23.27	24.81	25.12
	3H	26.28	27.71	26.65	28.03	28.39	23.99	25.42	24.37	25.75	26.11
	4H	27.04	28.39	27.44	28.73	29.11	24.24	25.58	24.64	25.93	26.31
	6H	27.57	28.81	27.98	29.17	29.56	24.42	25.66	24.83	26.03	26.42
	8H	27.71	28.90	28.14	29.28	29.68	24.47	25.66	24.90	26.04	26.44
	12H	27.78	28.91	28.21	29.30	29.72	24.49	25.63	24.92	26.01	26.44
4H	2H	24.66	26.00	25.06	26.35	26.73	23.63	24.97	24.03	25.32	25.70
	3H	26.83	27.95	27.24	28.35	28.75	24.88	26.00	25.29	26.39	26.79
	4H	27.68	28.68	28.11	29.10	29.53	25.18	26.19	25.61	26.60	27.04
	6H	28.30	29.18	28.76	29.62	30.08	25.43	26.31	25.88	26.75	27.21
	8H	28.49	29.31	28.95	29.75	30.22	25.50	26.32	25.96	26.76	27.23
	12H	28.59	29.32	29.07	29.80	30.27	25.54	26.28	26.02	26.75	27.22
8H	4H	27.75	28.57	28.21	29.01	29.48	25.45	26.27	25.91	26.71	27.18
	6H	28.43	29.11	28.93	29.60	30.07	25.75	26.43	26.25	26.92	27.40
	8H	28.66	29.27	29.17	29.78	30.27	25.86	26.47	26.37	26.98	27.46
	12H	28.81	29.35	29.32	29.84	30.40	25.94	26.47	26.45	26.96	27.53
12H	4H	27.74	28.47	28.22	28.95	29.42	25.48	26.21	25.96	26.69	27.16
	6H	28.41	29.02	28.92	29.53	30.01	25.79	26.39	26.30	26.90	27.39
	8H	28.68	29.21	29.18	29.70	30.27	25.94	26.47	26.44	26.96	27.53