

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: P845581

Luminaire Tested: SQ2R-PH1-100D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845581
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-935-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

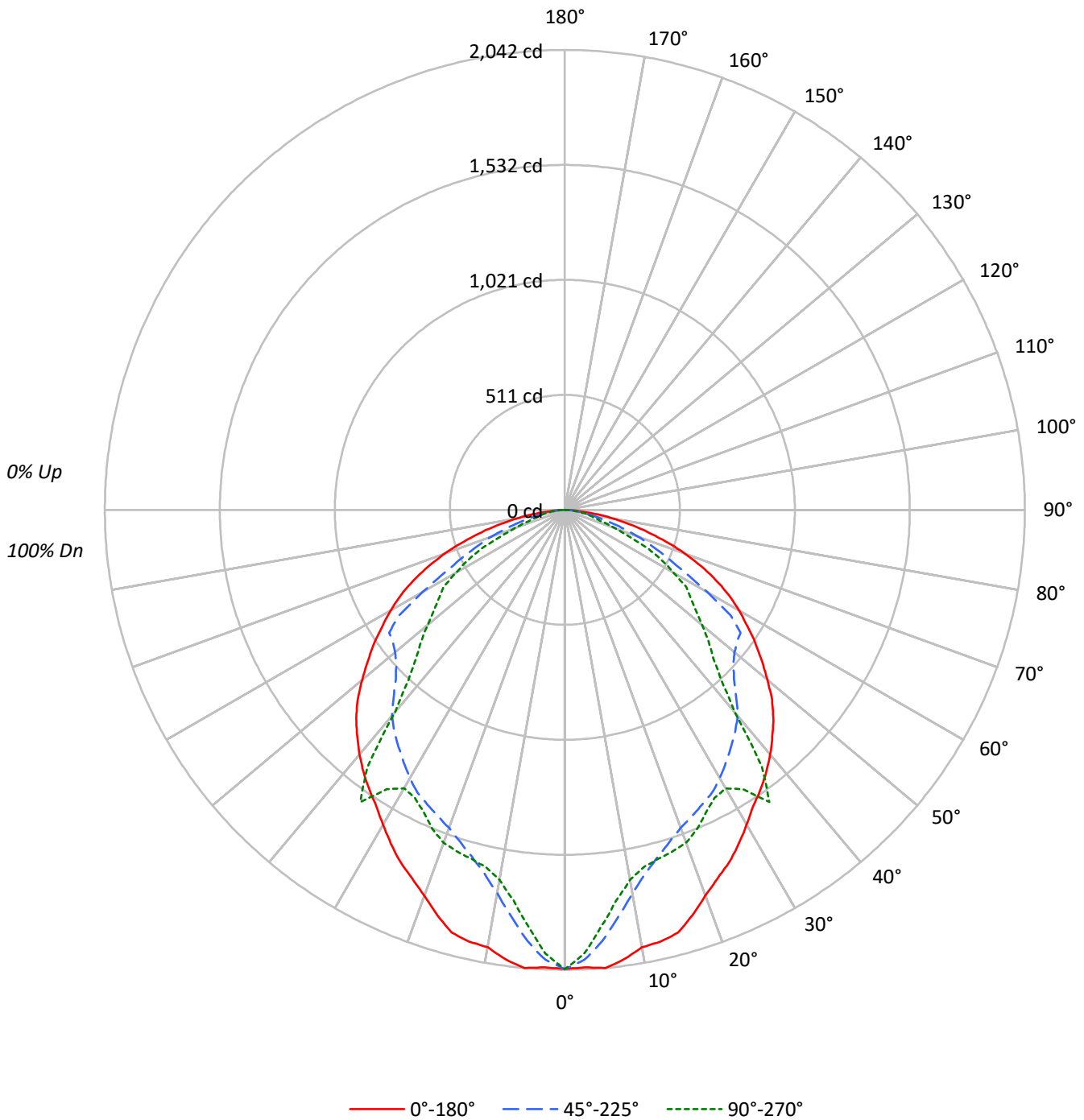
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4503.6 lumens
Efficiency: N/A
Efficacy: 119.8 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°	32913	32913	32913
5°	33102	31122	30084
10°	32339	28334	27347
15°	32485	26649	26812
20°	31326	25828	27027
25°	30752	25707	26398
30°	30085	25639	26614
35°	29857	25346	31196
40°	29883	25183	24732
45°	29894	24224	21302
50°	29474	24702	19974
55°	29101	26807	19164
60°	28811	23486	17977
65°	28306	19045	15633
70°	26738	16206	11169
75°	23836	12221	8472
80°	19479	7931	7931
85°	12208	7188	5391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29894 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.9	4.0
10°-20°	471.4	10.5
20°-30°	691.4	15.4
30°-40°	838.0	18.6
40°-50°	823.3	18.3
50°-60°	717.2	15.9
60°-70°	497.2	11.0
70°-80°	234.7	5.2
80°-90°	50.5	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°	1342.7	29.8
0°-40°	2180.7	48.4
0°-60°	3721.2	82.6
0°-90°	4503.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4503.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2038	2038	2038	2038	2038	
5°	2042	2040	1920	1860	1856	192
15°	1943	1726	1594	1583	1604	543
25°	1726	1462	1443	1488	1482	794
35°	1515	1218	1286	1393	1583	949
45°	1309	962	1061	1102	933	1007
55°	1034	749	952	687	681	924
65°	741	514	498	409	409	729
75°	382	262	196	140	136	404
85°	66	43	39	31	29	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2038.5	2038.5	2038.5	2038.5	2038.5
2.5°	2032.7	2059.8	1999.7	1976.4	1972.5
5°	2042.4	2040.4	1920.2	1860.0	1856.2
7.5°	2013.3	1960.9	1821.3	1753.4	1749.5
10°	1972.5	1881.4	1728.2	1668.0	1668.0
12.5°	1962.8	1805.7	1652.5	1611.8	1623.4
15°	1943.4	1726.2	1594.3	1582.7	1604.0
17.5°	1885.3	1650.6	1545.8	1565.2	1590.4
20°	1823.2	1592.4	1503.2	1549.7	1573.0
22.5°	1770.8	1536.1	1472.1	1524.5	1534.2
25°	1726.2	1462.4	1443.0	1487.6	1481.8
27.5°	1671.9	1396.5	1415.9	1443.0	1441.1
30°	1613.7	1338.3	1375.2	1402.3	1427.5
32.5°	1557.5	1270.4	1330.5	1404.2	1470.2
35°	1514.8	1218.0	1285.9	1392.6	1582.7
37.5°	1468.3	1154.0	1241.3	1326.7	1437.2
40°	1417.8	1084.2	1194.8	1313.1	1173.4
42.5°	1363.5	1029.9	1124.9	1287.9	1028.0
45°	1309.2	962.0	1060.9	1101.7	932.9
47.5°	1247.1	911.6	1014.4	936.8	865.0
50°	1173.4	861.2	983.4	837.9	795.2
52.5°	1101.7	808.8	962.0	756.4	731.2
55°	1033.8	748.7	952.3	686.6	680.8
57.5°	960.1	688.5	870.9	622.6	638.1
60°	892.2	630.4	727.3	568.3	556.7
62.5°	820.4	574.1	593.5	498.5	486.8
65°	740.9	514.0	498.5	409.2	409.2
67.5°	655.6	451.9	418.9	353.0	302.6
70°	566.4	391.8	343.3	267.7	236.6
72.5°	471.3	327.8	265.7	207.5	170.7
75°	382.1	261.8	195.9	139.6	135.8
77.5°	292.9	199.8	143.5	108.6	108.6
80°	209.5	143.5	85.3	83.4	85.3
82.5°	131.9	87.3	58.2	62.1	62.1
85°	65.9	42.7	38.8	31.0	29.1
87.5°	17.5	15.5	9.7	9.7	9.7
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	23.28	24.87	23.64	25.18	25.49	21.99	23.58	22.35	23.89	24.21
	3H	25.36	26.79	25.74	27.12	27.48	23.07	24.51	23.45	24.83	25.19
	4H	26.12	27.47	26.52	27.82	28.19	23.32	24.67	23.72	25.01	25.39
	6H	26.65	27.89	27.06	28.26	28.65	23.50	24.74	23.91	25.11	25.50
	8H	26.79	27.98	27.22	28.37	28.77	23.55	24.74	23.98	25.13	25.53
	12H	26.86	28.00	27.29	28.38	28.81	23.57	24.71	24.00	25.09	25.52
4H	2H	23.74	25.09	24.14	25.43	25.81	22.71	24.06	23.11	24.41	24.78
	3H	25.91	27.03	26.32	27.43	27.83	23.96	25.08	24.37	25.48	25.88
	4H	26.76	27.77	27.19	28.18	28.62	24.26	25.27	24.70	25.69	26.12
	6H	27.38	28.26	27.84	28.70	29.16	24.51	25.39	24.97	25.83	26.29
	8H	27.57	28.39	28.03	28.83	29.30	24.58	25.40	25.05	25.85	26.31
	12H	27.67	28.41	28.15	28.88	29.35	24.63	25.36	25.11	25.84	26.31
8H	4H	26.83	27.65	27.29	28.10	28.56	24.53	25.35	25.00	25.80	26.26
	6H	27.51	28.19	28.01	28.68	29.16	24.83	25.51	25.33	26.00	26.48
	8H	27.75	28.35	28.26	28.86	29.35	24.94	25.55	25.46	26.06	26.55
	12H	27.89	28.43	28.40	28.92	29.48	25.02	25.56	25.53	26.05	26.61
12H	4H	26.82	27.55	27.30	28.03	28.50	24.56	25.30	25.04	25.77	26.24
	6H	27.49	28.10	28.00	28.61	29.10	24.87	25.48	25.38	25.99	26.47
	8H	27.76	28.30	28.27	28.79	29.35	25.02	25.55	25.53	26.05	26.61