

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: P845573

Luminaire Tested: SQ2R-PH1-075D-840-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845573
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-PH1-075D-840-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS
750 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

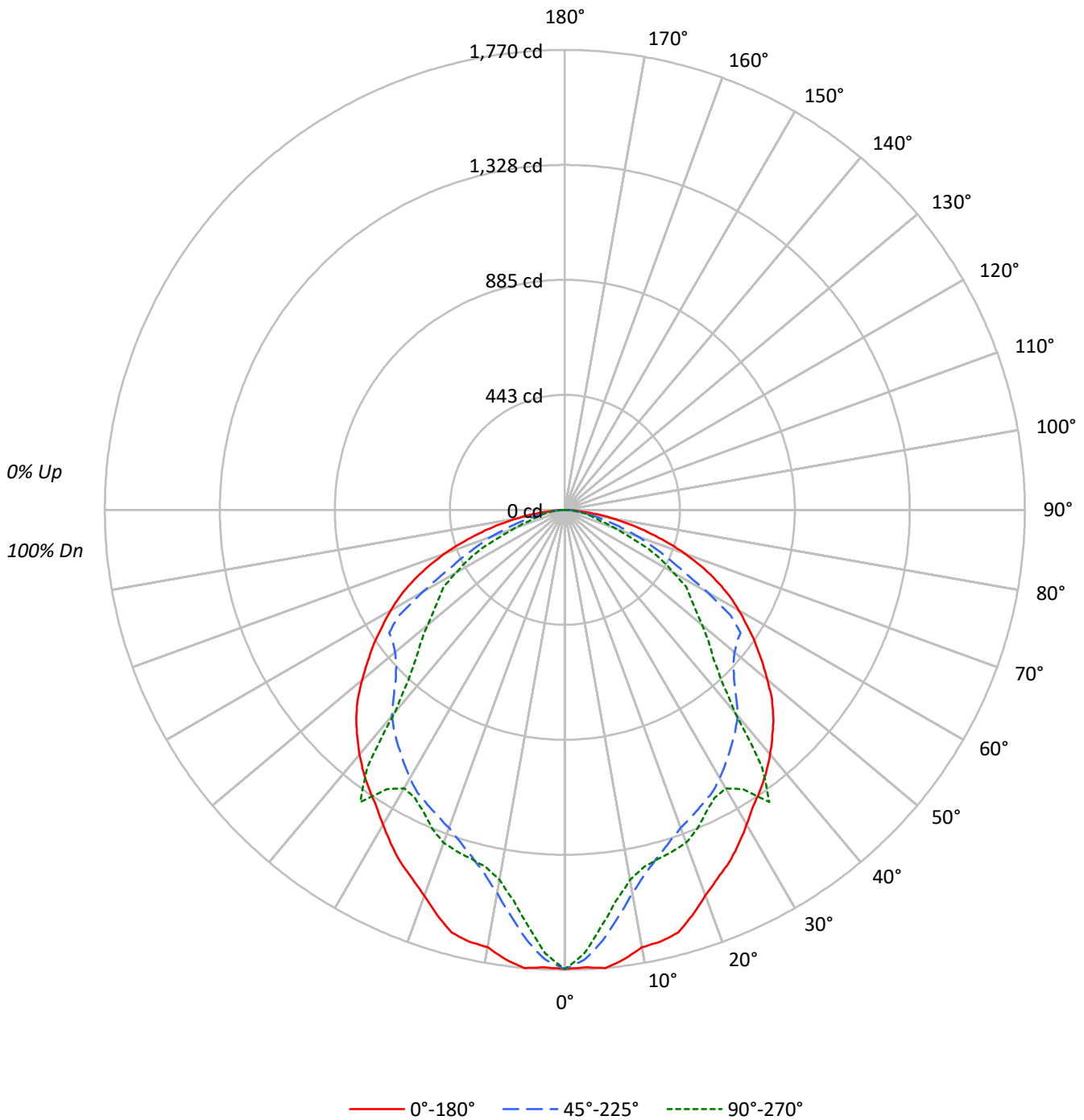
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3903.7 lumens
Efficiency: N/A
Efficacy: 146.2 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): 26.7
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

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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°	28528	28528	28528
5°	28692	26976	26076
10°	28032	24558	23704
15°	28157	23099	23239
20°	27153	22386	23426
25°	26657	22283	22882
30°	26077	22223	23070
35°	25880	21969	27039
40°	25901	21827	21437
45°	25912	20998	18463
50°	25548	21411	17314
55°	25225	23237	16611
60°	24971	20357	15581
65°	24535	16508	13551
70°	23174	14049	9682
75°	20661	10593	7342
80°	16885	6881	6881
85°	10596	6224	4668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25912 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.9	4.0
10°-20°	408.6	10.5
20°-30°	599.3	15.4
30°-40°	726.4	18.6
40°-50°	713.6	18.3
50°-60°	621.7	15.9
60°-70°	431.0	11.0
70°-80°	203.4	5.2
80°-90°	43.8	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°	1163.8	29.8
0°-40°	1890.2	48.4
0°-60°	3225.5	82.6
0°-90°	3903.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3903.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1767	1767	1767	1767	1767	
5°	1770	1769	1664	1612	1609	167
15°	1684	1496	1382	1372	1390	470
25°	1496	1268	1251	1290	1284	688
35°	1313	1056	1115	1207	1372	822
45°	1135	834	920	955	809	873
55°	896	649	826	595	590	801
65°	642	446	432	355	355	632
75°	331	227	170	121	118	351
85°	57	37	34	27	25	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1766.9	1766.9	1766.9	1766.9	1766.9
2.5°	1761.9	1785.4	1733.3	1713.1	1709.8
5°	1770.3	1768.6	1664.4	1612.3	1608.9
7.5°	1745.1	1699.7	1578.6	1519.8	1516.4
10°	1709.8	1630.7	1497.9	1445.8	1445.8
12.5°	1701.4	1565.2	1432.4	1397.1	1407.2
15°	1684.5	1496.3	1381.9	1371.8	1390.3
17.5°	1634.1	1430.7	1339.9	1356.7	1378.6
20°	1580.3	1380.3	1302.9	1343.3	1363.4
22.5°	1534.9	1331.5	1276.0	1321.4	1329.8
25°	1496.3	1267.6	1250.8	1289.5	1284.4
27.5°	1449.2	1210.5	1227.3	1250.8	1249.1
30°	1398.7	1160.0	1192.0	1215.5	1237.4
32.5°	1350.0	1101.2	1153.3	1217.2	1274.3
35°	1313.0	1055.8	1114.6	1207.1	1371.8
37.5°	1272.7	1000.3	1076.0	1149.9	1245.8
40°	1228.9	939.8	1035.6	1138.2	1017.1
42.5°	1181.9	892.7	975.1	1116.3	891.0
45°	1134.8	833.9	919.6	954.9	808.6
47.5°	1081.0	790.2	879.3	812.0	749.8
50°	1017.1	746.4	852.4	726.3	689.3
52.5°	954.9	701.1	833.9	655.7	633.8
55°	896.1	648.9	825.5	595.1	590.1
57.5°	832.2	596.8	754.9	539.7	553.1
60°	773.3	546.4	630.4	492.6	482.5
62.5°	711.1	497.6	514.4	432.1	422.0
65°	642.2	445.5	432.1	354.7	354.7
67.5°	568.2	391.7	363.1	306.0	262.3
70°	490.9	339.6	297.6	232.0	205.1
72.5°	408.5	284.1	230.3	179.9	147.9
75°	331.2	227.0	169.8	121.0	117.7
77.5°	253.9	173.2	124.4	94.1	94.1
80°	181.6	124.4	74.0	72.3	74.0
82.5°	114.3	75.7	50.4	53.8	53.8
85°	57.2	37.0	33.6	26.9	25.2
87.5°	15.1	13.4	8.4	8.4	8.4
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	22.78	24.37	23.14	24.68	25.00	21.49	23.08	21.86	23.39	23.71
	3H	24.86	26.29	25.24	26.62	26.98	22.58	24.01	22.96	24.34	24.70
	4H	25.63	26.97	26.03	27.32	27.70	22.82	24.17	23.22	24.52	24.89
	6H	26.15	27.39	26.56	27.76	28.15	23.00	24.25	23.42	24.61	25.00
	8H	26.30	27.48	26.72	27.87	28.27	23.06	24.24	23.48	24.63	25.03
	12H	26.37	27.50	26.79	27.88	28.31	23.08	24.21	23.51	24.59	25.02
4H	2H	23.25	24.59	23.65	24.94	25.31	22.22	23.56	22.62	23.91	24.29
	3H	25.42	26.53	25.83	26.93	27.33	23.46	24.58	23.87	24.98	25.38
	4H	26.26	27.27	26.69	27.68	28.12	23.77	24.78	24.20	25.19	25.63
	6H	26.89	27.76	27.34	28.21	28.66	24.02	24.89	24.47	25.33	25.79
	8H	27.07	27.89	27.54	28.34	28.80	24.09	24.91	24.55	25.35	25.82
	12H	27.18	27.91	27.66	28.39	28.86	24.13	24.86	24.61	25.34	25.81
8H	4H	26.34	27.16	26.80	27.60	28.06	24.04	24.86	24.50	25.30	25.77
	6H	27.02	27.69	27.51	28.18	28.66	24.34	25.02	24.83	25.51	25.98
	8H	27.25	27.86	27.76	28.36	28.85	24.45	25.05	24.96	25.56	26.05
	12H	27.40	27.93	27.90	28.42	28.99	24.52	25.06	25.03	25.55	26.11
12H	4H	26.32	27.06	26.80	27.53	28.00	24.07	24.80	24.55	25.28	25.75
	6H	27.00	27.60	27.51	28.11	28.60	24.37	24.98	24.88	25.49	25.98
	8H	27.26	27.80	27.77	28.29	28.85	24.52	25.06	25.03	25.55	26.11