

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: P845601

Luminaire Tested: SQ2R-PP3-100D-830-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845601
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-830-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PRISM CONTINUOUS LENS
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

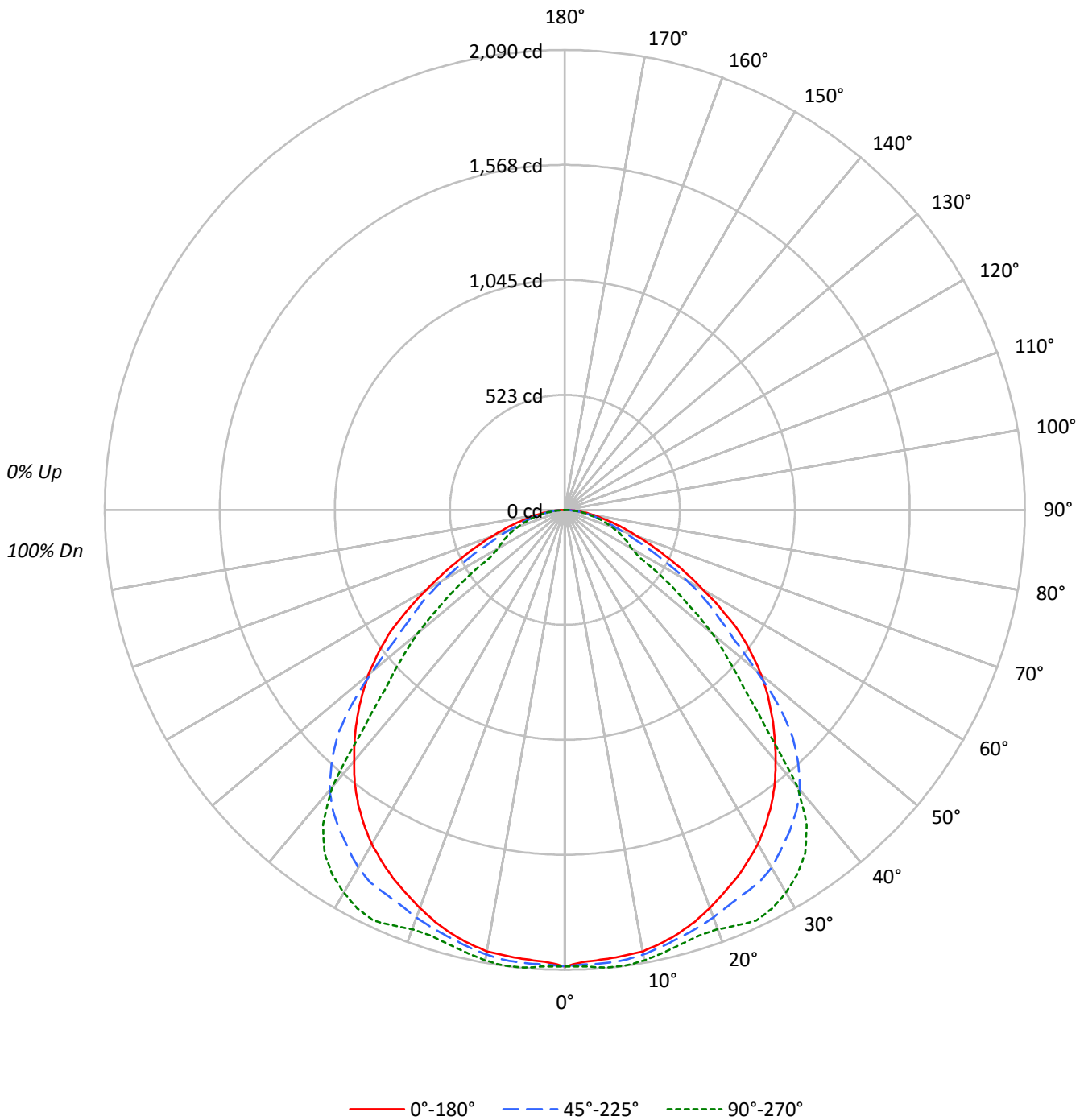
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5225.6 lumens
Efficiency: N/A
Efficacy: 139.0 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	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°	33495	33495	33495
5°	33232	33517	33836
10°	33401	33652	34083
15°	33320	33650	34163
20°	33082	33874	34854
25°	32895	34301	36685
30°	32708	34998	37449
35°	32244	35098	37519
40°	31384	35036	34665
45°	30444	33449	26389
50°	29250	28535	21979
55°	27223	24014	15803
60°	23441	20605	11331
65°	19771	15920	11144
70°	16461	12524	10664
75°	13955	10805	9987
80°	11827	9382	8973
85°	9337	7725	4872

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 33449 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.6	3.8
10°-20°	571.8	10.9
20°-30°	896.2	17.2
30°-40°	1106.6	21.2
40°-50°	1041.8	19.9
50°-60°	736.5	14.1
60°-70°	418.4	8.0
70°-80°	207.2	4.0
80°-90°	49.4	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°	1665.7	31.9
0°-40°	2772.3	53.1
0°-60°	4550.5	87.1
0°-90°	5225.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5225.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2074	2074	2074	2074	2074	
5°	2050	2088	2068	2072	2088	195
15°	1993	2022	2013	2033	2044	562
25°	1846	1895	1925	2002	2059	851
35°	1636	1682	1781	1882	1904	1021
45°	1333	1436	1465	1243	1156	1027
55°	967	1026	853	645	561	855
65°	518	546	417	294	292	518
75°	224	248	173	162	160	241
85°	50	46	42	33	26	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2074.5	2074.5	2074.5	2074.5	2074.5
2.5°	2054.8	2092.1	2068.0	2072.3	2076.7
5°	2050.4	2087.7	2068.0	2072.3	2087.7
7.5°	2043.8	2083.3	2063.6	2070.1	2089.9
10°	2037.3	2070.1	2052.6	2063.6	2078.9
12.5°	2017.5	2048.2	2032.9	2048.2	2061.4
15°	1993.4	2021.9	2013.1	2032.9	2043.8
17.5°	1962.7	1995.6	1993.4	2019.7	2028.5
20°	1925.4	1967.1	1971.5	2006.6	2028.5
22.5°	1885.9	1936.4	1945.2	2002.2	2043.8
25°	1846.5	1894.7	1925.4	2002.2	2059.2
27.5°	1800.4	1848.7	1910.1	1995.6	2041.6
30°	1754.4	1800.4	1877.2	1967.1	2008.7
32.5°	1697.3	1745.6	1828.9	1927.6	1964.9
35°	1635.9	1682.0	1780.7	1881.6	1903.5
37.5°	1568.0	1616.2	1728.0	1796.0	1804.8
40°	1489.0	1557.0	1662.3	1673.2	1644.7
42.5°	1412.3	1504.4	1570.2	1513.1	1361.8
45°	1333.3	1436.4	1464.9	1243.4	1155.7
47.5°	1250.0	1353.1	1320.2	1070.2	1008.8
50°	1164.5	1260.9	1136.0	932.0	875.0
52.5°	1068.0	1151.3	971.5	800.4	706.1
55°	967.1	1026.3	853.1	644.7	561.4
57.5°	846.5	890.3	752.2	506.6	401.3
60°	725.9	758.8	638.1	396.9	350.9
62.5°	616.2	644.7	519.7	331.1	322.4
65°	517.5	546.0	416.7	293.9	291.7
67.5°	427.6	458.3	333.3	263.2	261.0
70°	348.7	381.6	265.3	230.3	225.9
72.5°	282.9	313.6	214.9	195.2	193.0
75°	223.7	247.8	173.2	162.3	160.1
77.5°	171.1	188.6	136.0	129.4	127.2
80°	127.2	133.8	100.9	98.7	96.5
82.5°	87.7	83.3	70.2	68.0	63.6
85°	50.4	46.1	41.7	32.9	26.3
87.5°	19.7	19.7	8.8	6.6	6.6
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	23.65	25.17	24.01	25.48	25.80	20.05	21.57	20.41	21.89	22.20
	3H	24.79	26.15	25.17	26.48	26.84	21.20	22.56	21.58	22.89	23.25
	4H	25.16	26.44	25.56	26.79	27.17	21.69	22.97	22.09	23.32	23.70
	6H	25.41	26.59	25.82	26.95	27.35	22.07	23.25	22.48	23.61	24.01
	8H	25.48	26.60	25.91	26.99	27.39	22.17	23.29	22.60	23.68	24.08
	12H	25.51	26.58	25.94	26.97	27.40	22.21	23.28	22.64	23.66	24.09
4H	2H	23.83	25.11	24.23	25.46	25.84	20.84	22.12	21.24	22.46	22.84
	3H	25.20	26.26	25.62	26.66	27.06	22.15	23.20	22.56	23.60	24.00
	4H	25.70	26.65	26.14	27.06	27.50	22.73	23.67	23.16	24.09	24.53
	6H	26.07	26.90	26.53	27.34	27.80	23.20	24.02	23.66	24.47	24.93
	8H	26.18	26.95	26.64	27.39	27.86	23.33	24.10	23.80	24.55	25.01
	12H	26.24	26.93	26.73	27.41	27.88	23.39	24.08	23.87	24.55	25.03
8H	4H	25.77	26.53	26.23	26.98	27.45	23.05	23.81	23.51	24.26	24.73
	6H	26.22	26.85	26.72	27.35	27.82	23.61	24.25	24.11	24.74	25.22
	8H	26.38	26.95	26.89	27.46	27.95	23.80	24.37	24.31	24.88	25.37
	12H	26.49	27.00	27.00	27.49	28.05	23.90	24.41	24.41	24.90	25.46
12H	4H	25.75	26.44	26.24	26.92	27.39	23.08	23.77	23.57	24.25	24.72
	6H	26.21	26.78	26.72	27.29	27.78	23.67	24.24	24.18	24.75	25.24
	8H	26.41	26.91	26.92	27.41	27.97	23.90	24.41	24.41	24.90	25.46