

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: P855307

Luminaire Tested: SQ2-PR1-100U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855307
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-100U-100D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

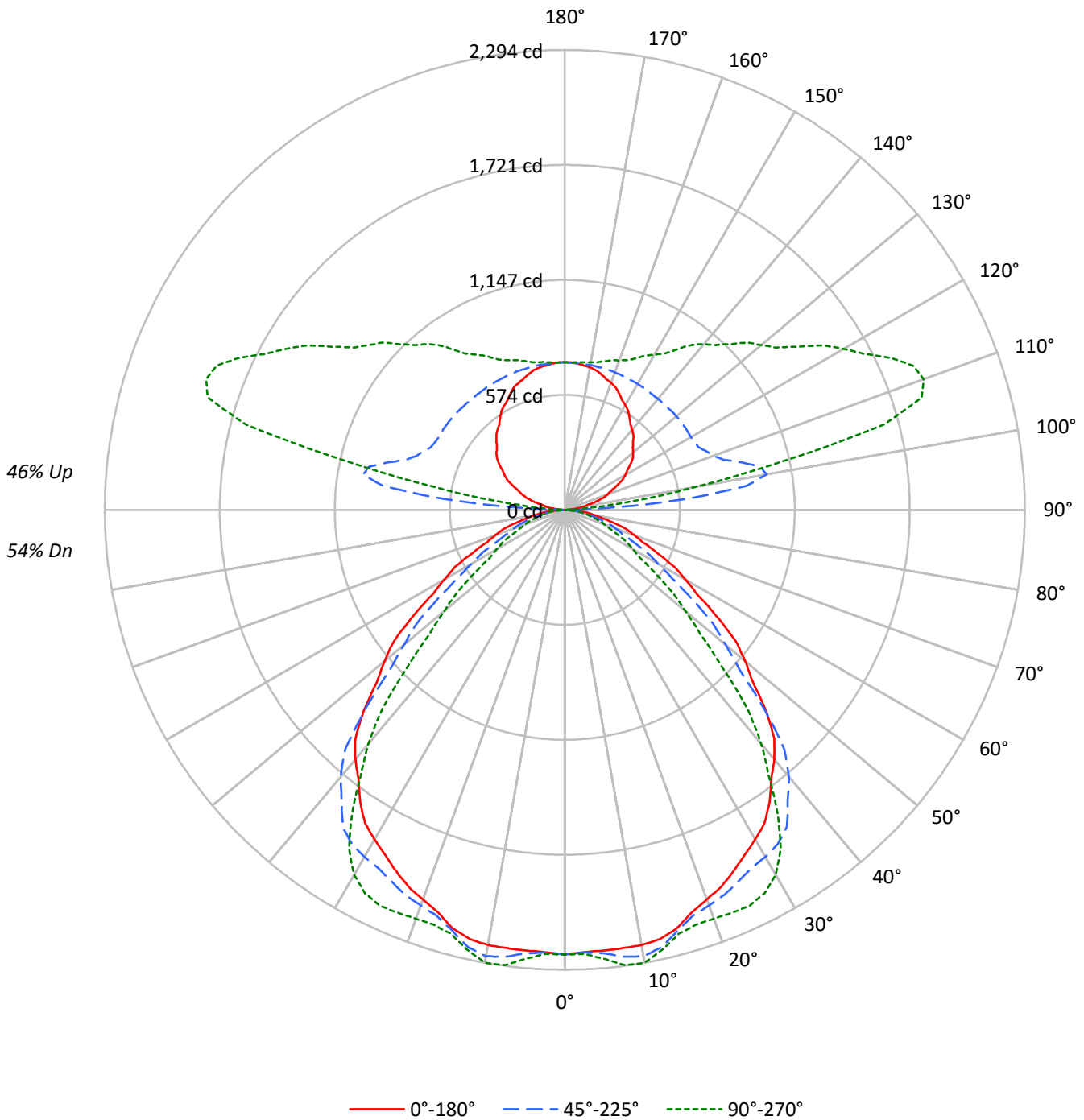
Lumens per Lamp: N/A
Luminaire Lumens: 9912.8 lumens
Efficiency: N/A
Efficacy: 141.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.2
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
RCR																				
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54	54	54
1	99	95	92	88	92	89	85	83	76	74	72	64	63	61	54	53	52	47	47	47
2	91	84	78	73	84	78	73	69	67	64	60	57	55	52	48	46	45	40	40	40
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	41	39	35	35	35
4	77	66	59	53	71	62	55	50	54	48	44	46	42	39	39	36	34	30	30	30
5	70	59	51	46	65	55	48	43	48	43	39	42	37	34	35	32	30	27	27	27
6	65	53	45	40	60	50	43	38	44	38	34	38	33	30	32	29	26	24	24	24
7	60	48	41	35	56	45	38	33	40	34	30	34	30	27	30	26	24	21	21	21
8	56	44	36	31	52	41	34	30	36	31	27	32	27	24	27	24	21	19	19	19
9	52	40	33	28	49	38	31	27	33	28	24	29	25	22	25	22	19	17	17	17
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	18	16	16	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	35802	35802	35802
5°	35755	35976	36415
10°	36133	37059	37615
15°	36120	36309	36612
20°	35536	36081	37285
25°	35436	36442	38819
30°	35399	37254	39193
35°	35063	38049	36488
40°	34254	36636	32111
45°	32412	32154	25393
50°	29466	26286	19700
55°	25897	21636	15333
60°	22407	17299	12626
65°	19347	14338	11056
70°	17391	12699	9814
75°	15939	10998	9021
80°	13873	8833	8833
85°	10041	7966	4187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 35038 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.1	2.2
10°-20°	619.9	6.3
20°-30°	958.2	9.7
30°-40°	1152.5	11.6
40°-50°	1034.9	10.4
50°-60°	693.3	7.0
60°-70°	403.2	4.1
70°-80°	207.1	2.1
80°-90°	52.4	0.5
90°-100°	307.1	3.1
100°-110°	929.0	9.4
110°-120°	906.9	9.1
120°-130°	741.0	7.5
130°-140°	604.9	6.1
140°-150°	470.9	4.8
150°-160°	339.4	3.4
160°-170°	207.8	2.1
170°-180°	70.2	0.7
0°-30°	1792.2	18.1
0°-40°	2944.7	29.7
0°-60°	4672.9	47.1
0°-90°	5335.6	53.8
90°-120°	2143.0	21.6
90°-150°	3959.8	39.9
90°-180°	4577.0	46.2
0°-180°	9912.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2217	2217	2217	2217	2217	
5°	2206	2244	2220	2225	2247	211
15°	2161	2249	2172	2179	2190	607
25°	1989	2069	2046	2122	2179	917
35°	1779	1794	1930	1893	1851	1109
45°	1420	1534	1408	1187	1112	1086
55°	920	955	769	593	545	827
65°	506	517	375	305	289	512
75°	256	249	176	149	145	271
85°	54	43	43	29	23	67
90°	0	2	14	8	7	4
95°	38	120	580	214	135	45
105°	162	227	912	1732	1646	170
115°	288	343	738	1527	1793	284
125°	402	446	727	1206	1419	357
135°	481	532	723	1040	1170	373
145°	562	604	723	894	978	352
155°	641	662	727	802	832	295
165°	701	709	731	759	768	197
175°	733	733	734	740	738	70
180°	736	736	736	736	736	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2217.4	2217.4	2217.4	2217.4	2217.4
2.5°	2208.4	2234.9	2210.2	2212.2	2217.4
5°	2206.1	2243.7	2219.7	2224.8	2246.8
7.5°	2205.6	2259.1	2247.7	2261.5	2290.7
10°	2203.9	2268.0	2260.4	2263.3	2294.3
12.5°	2193.1	2267.8	2233.3	2230.5	2247.2
15°	2160.9	2249.3	2172.2	2179.3	2190.3
17.5°	2104.4	2196.8	2123.4	2148.3	2170.0
20°	2068.2	2158.9	2099.9	2132.3	2170.0
22.5°	2035.7	2126.3	2078.1	2123.7	2175.3
25°	1989.1	2068.7	2045.6	2121.5	2179.0
27.5°	1940.3	1987.1	2014.4	2116.1	2156.3
30°	1898.7	1929.7	1998.2	2086.7	2102.2
32.5°	1853.5	1872.1	1976.5	2022.6	2002.7
35°	1778.9	1794.4	1930.4	1893.2	1851.2
37.5°	1690.3	1722.1	1826.9	1719.9	1671.8
40°	1625.2	1678.3	1738.2	1578.8	1523.5
42.5°	1545.7	1630.5	1620.7	1417.5	1349.9
45°	1419.5	1534.5	1408.2	1187.2	1112.1
47.5°	1270.8	1388.8	1182.2	984.9	914.5
50°	1173.1	1268.2	1046.5	861.7	784.3
52.5°	1073.7	1142.2	930.8	746.1	675.8
55°	920.0	955.3	768.6	593.4	544.7
57.5°	779.0	801.4	627.9	479.3	443.4
60°	693.9	709.4	535.7	419.8	391.0
62.5°	616.1	628.2	461.6	369.3	347.6
65°	506.4	517.3	375.3	304.8	289.4
67.5°	419.1	424.8	308.7	253.2	238.7
70°	368.4	370.6	269.0	219.0	207.9
72.5°	323.3	320.1	231.0	190.2	182.6
75°	255.5	248.8	176.3	149.1	144.6
77.5°	190.8	183.7	123.9	114.8	114.8
80°	149.2	140.3	95.0	95.0	95.0
82.5°	111.2	98.8	73.2	73.2	71.4
85°	54.2	43.2	43.0	29.3	22.6
87.5°	14.5	14.9	8.2	7.0	6.8
90°	0.0	2.2	13.9	8.0	6.9
92.5°	12.9	52.2	187.5	62.2	44.8
95°	38.1	120.5	579.6	214.1	135.1
97.5°	73.7	153.4	913.4	604.5	368.0
100°	95.8	173.8	1020.7	986.7	662.8
102.5°	120.7	195.9	998.5	1383.9	1103.3
105°	161.6	227.1	912.2	1732.3	1646.4
107.5°	200.4	262.9	828.9	1766.6	1866.0
110°	226.3	286.1	787.5	1723.3	1903.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	251.3	309.3	762.5	1650.4	1879.0
115°	287.5	342.7	737.8	1526.6	1793.1
117.5°	323.5	375.8	729.0	1410.6	1683.3
120°	347.5	397.2	726.2	1342.9	1604.9
122.5°	369.7	416.6	726.2	1283.3	1525.4
125°	401.8	445.8	727.3	1205.6	1419.0
127.5°	427.9	473.5	726.2	1146.9	1328.9
130°	444.5	491.9	726.2	1113.3	1278.1
132.5°	459.3	507.6	725.3	1082.5	1234.7
135°	481.4	532.2	722.8	1039.8	1169.6
137.5°	506.1	554.5	722.8	994.1	1114.4
140°	521.9	569.3	722.8	964.4	1078.3
142.5°	537.6	583.2	721.8	937.2	1036.7
145°	562.3	604.0	722.8	894.3	977.9
147.5°	587.0	622.4	724.2	859.0	923.2
150°	602.6	635.4	725.1	839.4	893.6
152.5°	617.4	646.6	725.9	822.5	866.8
155°	640.7	662.2	727.3	801.9	832.4
157.5°	661.1	678.5	728.7	786.8	808.0
160°	673.1	687.8	729.7	777.3	793.2
162.5°	685.1	696.2	730.6	769.0	782.1
165°	700.9	708.7	730.8	758.8	767.8
167.5°	714.2	718.2	732.2	750.8	754.6
170°	721.6	723.8	733.2	747.0	748.2
172.5°	726.2	727.6	733.2	743.3	743.5
175°	733.2	733.2	734.3	740.0	737.8
177.5°	736.4	735.5	734.6	737.2	735.5
180°	735.5	735.5	735.5	735.5	735.5



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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	19.56	20.42	20.50	21.36	22.58	16.29	17.14	17.22	18.08	19.30
	3H	20.80	21.56	21.74	22.51	23.75	17.35	18.11	18.30	19.07	20.31
	4H	21.25	21.97	22.21	22.92	24.18	17.75	18.47	18.71	19.43	20.68
	6H	21.56	22.22	22.53	23.19	24.45	18.08	18.74	19.05	19.71	20.97
	8H	21.65	22.27	22.62	23.25	24.52	18.17	18.80	19.15	19.78	21.04
	12H	21.67	22.27	22.66	23.25	24.53	18.18	18.77	19.16	19.75	21.03
4H	2H	19.64	20.36	20.60	21.32	22.57	16.86	17.57	17.82	18.53	19.78
	3H	21.11	21.71	22.09	22.69	23.96	18.12	18.72	19.10	19.70	20.97
	4H	21.71	22.25	22.69	23.23	24.52	18.63	19.17	19.61	20.15	21.44
	6H	22.16	22.62	23.15	23.63	24.92	19.06	19.53	20.06	20.53	21.82
	8H	22.29	22.73	23.29	23.72	25.03	19.19	19.62	20.18	20.62	21.92
	12H	22.34	22.74	23.36	23.75	25.06	19.21	19.60	20.22	20.61	21.92
8H	4H	21.73	22.17	22.73	23.16	24.47	18.93	19.37	19.93	20.37	21.67
	6H	22.28	22.64	23.30	23.68	24.98	19.47	19.83	20.49	20.87	22.17
	8H	22.48	22.79	23.51	23.82	25.14	19.65	19.97	20.68	21.00	22.32
	12H	22.58	22.86	23.61	23.88	25.25	19.72	20.00	20.75	21.02	22.38
12H	4H	21.69	22.08	22.70	23.10	24.40	18.95	19.34	19.96	20.35	21.66
	6H	22.27	22.58	23.29	23.61	24.93	19.53	19.84	20.56	20.87	22.19
	8H	22.48	22.76	23.51	23.78	25.14	19.74	20.01	20.77	21.04	22.40