

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: P855085

Luminaire Tested: SQ2-PW1-050U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855085
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-050U-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

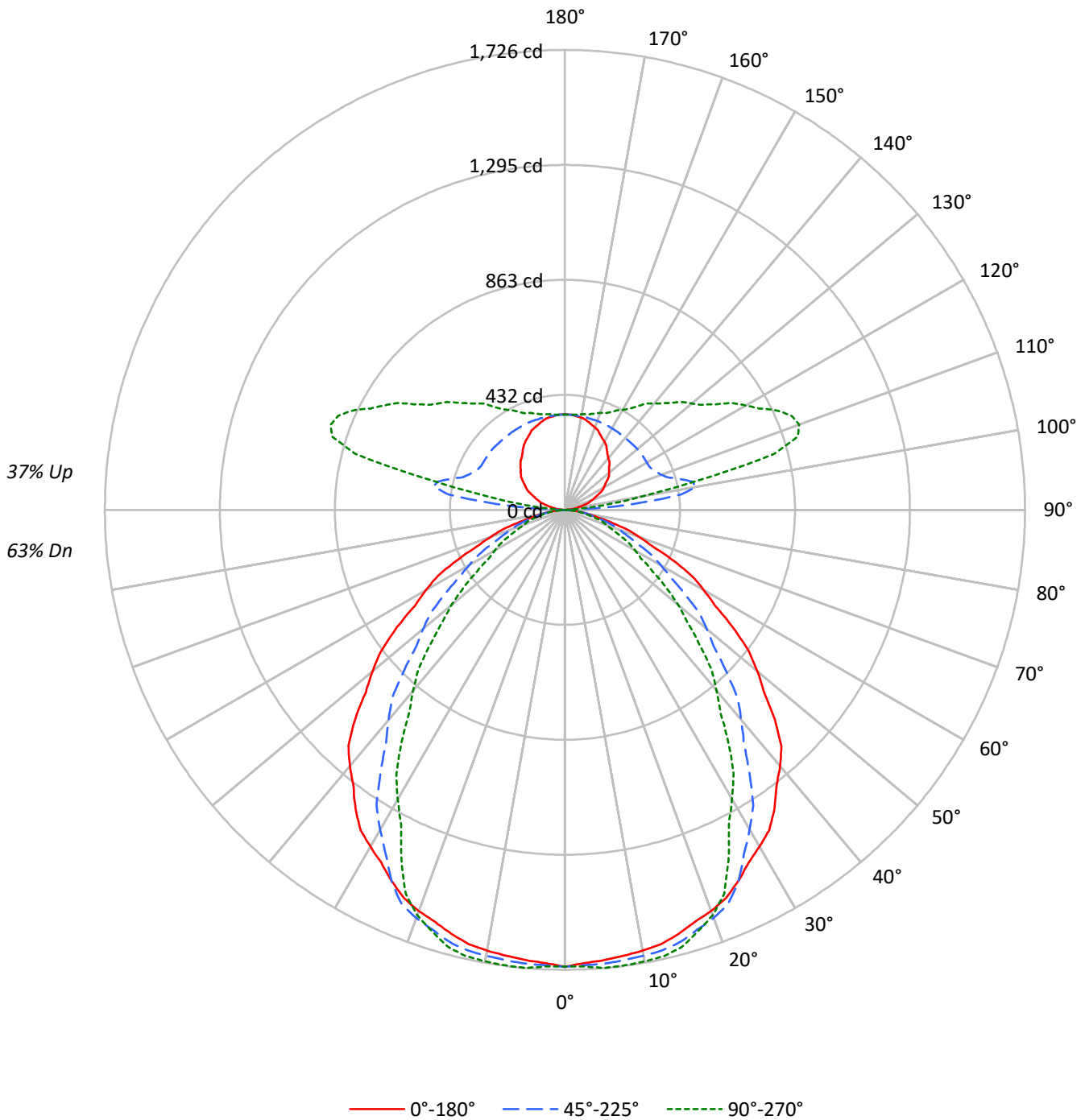
Lumens per Lamp: N/A
Luminaire Lumens: 6028.2 lumens
Efficiency: N/A
Efficacy: 145.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.5
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	110	110	110	110	103	103	103	103	91	91	91	79	79	79	68	68	68	63				
1	101	97	94	90	95	92	88	85	81	78	76	71	69	67	61	60	59	55				
2	93	86	80	75	87	81	76	71	72	68	64	63	60	57	55	53	51	47				
3	85	76	69	63	80	72	66	60	64	59	55	56	53	49	49	46	44	41				
4	78	68	60	54	73	64	57	52	57	52	47	51	46	43	45	41	39	35				
5	72	61	53	47	68	58	50	45	52	46	41	46	41	38	40	37	34	31				
6	67	55	47	41	63	52	45	40	47	41	36	42	37	33	37	33	30	28				
7	62	50	42	37	58	47	40	35	43	37	32	38	33	30	34	30	27	25				
8	58	46	38	33	54	43	36	31	39	33	29	35	30	27	31	27	25	22				
9	54	42	34	29	51	40	33	28	36	30	26	32	28	24	29	25	22	20				
10	50	38	31	27	48	37	30	26	33	28	24	30	25	22	27	23	20	19				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27676	27676	27676
5°	27490	27704	27968
10°	27540	27862	28211
15°	27534	28053	28379
20°	27545	28020	27825
25°	27396	27426	25857
30°	27210	25842	23375
35°	26997	23781	21108
40°	26460	21678	18649
45°	25421	19495	16290
50°	23662	17427	13943
55°	21647	15395	11305
60°	19401	13388	9752
65°	16967	11538	8669
70°	13874	10253	7860
75°	10792	8858	7230
80°	8052	7587	6378
85°	5446	5743	3631

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25421 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.2	2.7
10°-20°	472.9	7.8
20°-30°	696.0	11.5
30°-40°	760.9	12.6
40°-50°	682.6	11.3
50°-60°	509.2	8.4
60°-70°	321.8	5.3
70°-80°	159.4	2.6
80°-90°	37.8	0.6
90°-100°	142.7	2.4
100°-110°	452.5	7.5
110°-120°	443.7	7.4
120°-130°	361.1	6.0
130°-140°	294.4	4.9
140°-150°	229.5	3.8
150°-160°	165.4	2.7
160°-170°	101.0	1.7
170°-180°	34.1	0.6
0°-30°	1332.1	22.1
0°-40°	2093.0	34.7
0°-60°	3284.9	54.5
0°-90°	3803.8	63.1
90°-120°	1038.9	17.2
90°-150°	1923.8	31.9
90°-180°	2224.0	36.9
0°-180°	6028.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1696	1723	1709	1711	1726	161
15°	1647	1679	1678	1690	1698	465
25°	1538	1571	1540	1475	1451	708
35°	1370	1355	1206	1101	1071	854
45°	1113	1024	854	747	713	854
55°	769	696	547	429	402	687
65°	444	407	302	243	227	440
75°	173	186	142	119	116	191
85°	29	37	31	21	20	37
90°	0	1	3	3	3	2
95°	19	58	259	96	62	22
105°	79	111	446	850	814	83
115°	141	167	360	749	881	139
125°	195	218	355	587	692	173
135°	235	259	352	505	569	182
145°	275	296	352	436	474	172
155°	313	324	354	389	404	144
165°	341	345	355	368	372	96
175°	357	356	357	359	358	34
180°	358	358	358	358	358	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1714.1	1714.1	1714.1	1714.1	1714.1
2.5°	1702.4	1724.1	1710.3	1711.6	1715.5
5°	1696.1	1723.3	1709.3	1711.2	1725.6
7.5°	1687.7	1715.1	1704.6	1710.5	1724.5
10°	1679.8	1708.6	1699.4	1707.9	1720.7
12.5°	1669.4	1699.4	1693.0	1702.7	1715.5
15°	1647.2	1679.2	1678.3	1689.8	1697.8
17.5°	1621.4	1653.4	1651.8	1654.8	1658.7
20°	1603.1	1635.0	1630.8	1619.4	1619.4
22.5°	1577.0	1611.5	1600.9	1569.6	1559.4
25°	1537.8	1571.3	1539.5	1475.2	1451.4
27.5°	1492.1	1519.3	1455.2	1364.0	1330.8
30°	1459.5	1480.2	1386.1	1285.7	1253.8
32.5°	1425.6	1433.5	1315.4	1211.2	1176.7
35°	1369.7	1355.3	1206.5	1101.2	1070.9
37.5°	1303.7	1260.9	1101.7	991.5	958.0
40°	1255.4	1194.7	1028.5	918.3	884.8
42.5°	1201.8	1125.9	959.3	849.1	814.3
45°	1113.3	1024.0	853.8	746.9	713.4
47.5°	1013.7	925.0	755.2	651.7	623.0
50°	942.0	855.8	693.8	590.2	555.1
52.5°	868.8	791.6	633.7	527.2	479.3
55°	769.0	695.5	546.9	428.8	401.6
57.5°	666.1	602.5	468.2	360.9	338.6
60°	600.8	544.9	414.6	324.3	302.0
62.5°	538.1	488.5	362.5	290.5	271.9
65°	444.1	407.3	302.0	242.9	226.9
67.5°	352.6	332.1	251.1	199.3	188.8
70°	293.9	287.4	217.2	174.5	166.5
72.5°	243.0	245.5	184.5	151.1	145.6
75°	173.0	185.8	142.0	119.1	115.9
77.5°	117.9	137.0	105.1	88.0	85.6
80°	86.6	105.7	81.6	68.6	68.6
82.5°	60.4	75.7	58.2	51.6	51.6
85°	29.4	37.3	31.0	21.2	19.6
87.5°	7.8	11.9	5.9	4.6	4.6
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.0	80.0	26.6	18.7
95°	19.1	57.7	259.0	96.1	61.9
97.5°	35.6	74.8	438.9	274.2	168.3
100°	47.3	84.8	500.1	455.9	296.3
102.5°	60.0	95.6	489.3	669.6	512.5
105°	78.9	110.8	446.1	849.7	814.3
107.5°	97.8	127.3	404.8	868.4	916.0
110°	110.3	139.0	384.1	846.8	934.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	123.0	149.8	372.4	809.5	921.4
115°	140.8	167.3	360.4	748.7	880.9
117.5°	158.1	183.2	355.7	690.1	823.4
120°	169.0	193.2	354.8	654.0	782.9
122.5°	179.8	203.1	354.8	624.9	745.0
125°	194.9	218.0	354.8	587.0	691.6
127.5°	208.1	230.4	354.8	557.6	646.7
130°	216.3	239.3	354.8	540.3	620.6
132.5°	224.4	247.5	353.9	526.6	599.0
135°	235.4	258.6	352.5	504.9	568.9
137.5°	246.3	270.5	352.3	484.4	541.4
140°	253.5	277.7	351.4	469.8	521.5
142.5°	262.4	285.7	352.3	455.3	503.5
145°	274.9	295.8	352.5	435.7	474.2
147.5°	287.2	305.1	352.7	418.4	449.8
150°	296.3	310.5	353.6	408.3	433.7
152.5°	303.4	316.0	353.6	400.2	421.1
155°	313.1	324.1	353.6	389.0	404.3
157.5°	323.5	331.0	354.8	382.0	392.7
160°	328.9	335.5	354.8	377.5	386.4
162.5°	334.3	339.2	354.8	373.9	380.0
165°	341.3	344.6	354.8	368.4	371.8
167.5°	347.9	348.7	355.9	364.6	367.5
170°	351.4	351.4	355.9	362.7	363.8
172.5°	353.2	354.1	355.9	360.9	361.1
175°	357.0	356.0	357.0	359.3	358.2
177.5°	358.2	357.3	357.3	359.1	357.3
180°	358.2	358.2	358.2	358.2	358.2



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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	19.74	20.68	20.58	21.54	22.61	16.22	17.16	17.07	18.02	19.10
	3H	21.06	21.91	21.92	22.78	23.88	17.43	18.27	18.29	19.14	20.25
	4H	21.44	22.24	22.32	23.11	24.22	17.88	18.68	18.76	19.55	20.67
	6H	21.65	22.38	22.54	23.26	24.39	18.21	18.94	19.09	19.82	20.94
	8H	21.69	22.38	22.58	23.28	24.40	18.28	18.98	19.18	19.88	21.00
	12H	21.68	22.34	22.58	23.24	24.39	18.30	18.96	19.20	19.85	21.00
4H	2H	19.85	20.64	20.73	21.52	22.63	16.92	17.71	17.79	18.58	19.70
	3H	21.40	22.06	22.29	22.97	24.10	18.31	18.97	19.20	19.88	21.00
	4H	21.91	22.51	22.81	23.42	24.57	18.86	19.46	19.76	20.36	21.52
	6H	22.25	22.76	23.17	23.69	24.85	19.27	19.78	20.18	20.71	21.87
	8H	22.33	22.81	23.25	23.73	24.90	19.38	19.86	20.29	20.78	21.95
	12H	22.35	22.78	23.29	23.72	24.90	19.40	19.83	20.34	20.77	21.95
8H	4H	21.96	22.44	22.88	23.36	24.53	19.19	19.67	20.11	20.60	21.76
	6H	22.40	22.79	23.34	23.76	24.93	19.70	20.10	20.65	21.06	22.23
	8H	22.54	22.89	23.50	23.85	25.03	19.86	20.21	20.82	21.17	22.36
	12H	22.61	22.92	23.57	23.87	25.11	19.93	20.24	20.88	21.19	22.42
12H	4H	21.92	22.35	22.86	23.29	24.47	19.21	19.64	20.15	20.58	21.76
	6H	22.39	22.74	23.34	23.70	24.88	19.77	20.12	20.72	21.07	22.26
	8H	22.55	22.86	23.51	23.81	25.05	19.96	20.26	20.91	21.21	22.45