

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: P855296

Luminaire Tested: SQ2-PW1-025U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855296
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-025U-075D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

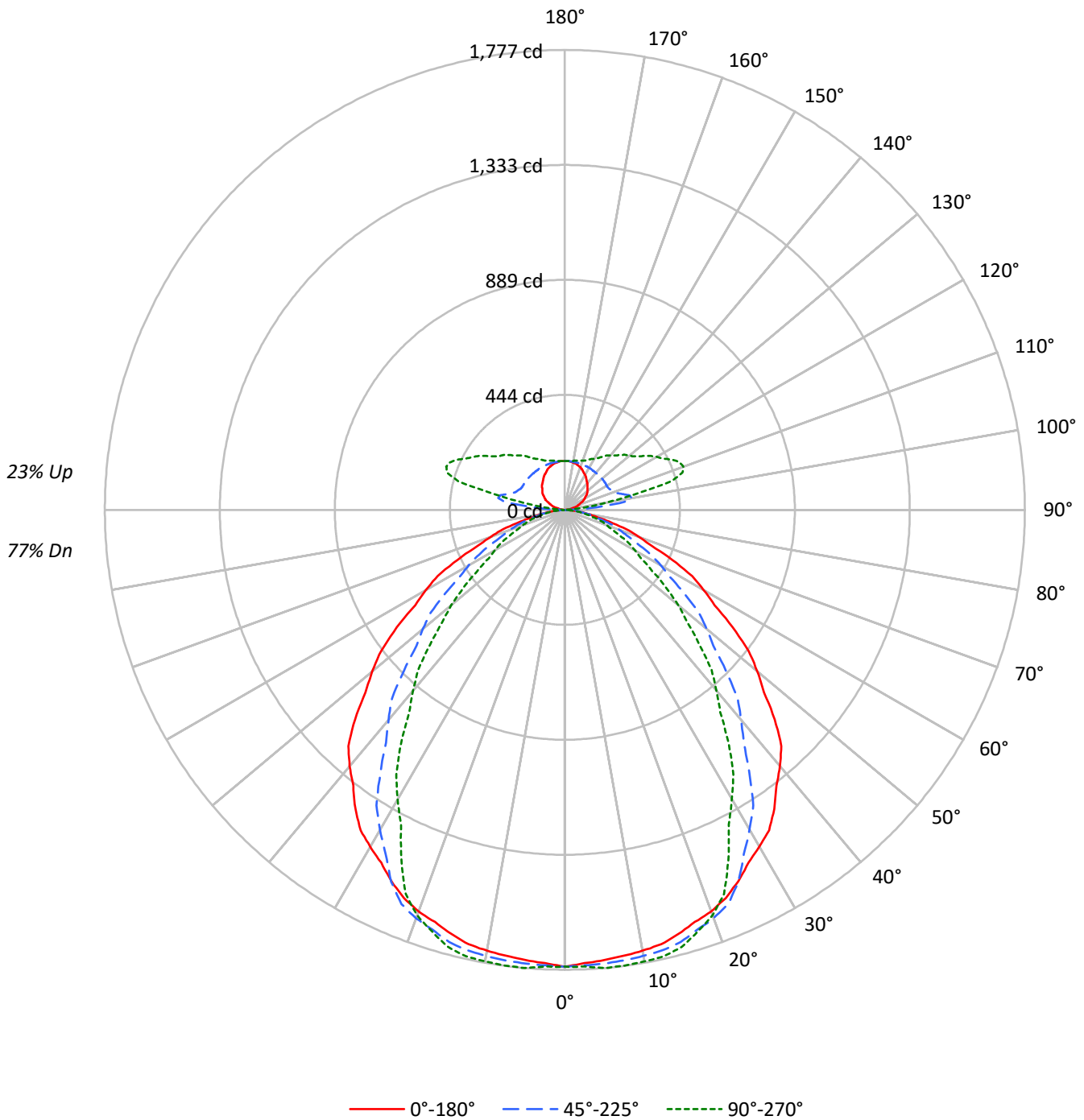
Lumens per Lamp: N/A
Luminaire Lumens: 5089.1 lumens
Efficiency: N/A
Efficacy: 149.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 34.1
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	0
RCR																		
0	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	105	101	97	94	100	96	93	90	88	85	83	80	78	76	73	72	70	67
2	96	89	83	78	91	85	80	75	78	74	70	71	68	65	65	63	60	57
3	88	79	72	66	84	76	69	64	70	64	60	64	60	56	59	55	52	50
4	81	71	63	57	77	68	61	55	62	57	52	58	53	49	53	49	46	43
5	75	63	55	49	71	61	54	48	56	50	46	52	47	43	48	44	41	38
6	70	57	49	44	66	55	48	42	51	45	40	48	42	38	44	40	36	34
7	65	52	44	39	62	50	43	38	47	41	36	44	38	34	40	36	32	30
8	60	48	40	35	57	46	39	34	43	37	32	40	35	31	37	33	29	27
9	56	44	36	31	54	42	35	31	40	34	29	37	32	28	35	30	27	25
10	53	41	33	28	50	39	32	28	37	31	27	34	29	26	32	28	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28501	28501	28501
5°	28310	28528	28801
10°	28362	28693	29052
15°	28356	28889	29227
20°	28366	28857	28654
25°	28214	28244	26626
30°	28021	26612	24071
35°	27802	24488	21737
40°	27248	22323	19205
45°	26179	20078	16776
50°	24367	17947	14358
55°	22292	15854	11643
60°	19979	13789	10043
65°	17471	11882	8928
70°	14290	10556	8091
75°	11117	9127	7442
80°	8294	7810	6564
85°	5613	5910	3742

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 26179 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.1	3.3
10°-20°	487.0	9.6
20°-30°	716.7	14.1
30°-40°	783.6	15.4
40°-50°	703.0	13.8
50°-60°	524.4	10.3
60°-70°	331.4	6.5
70°-80°	164.2	3.2
80°-90°	38.9	0.8
90°-100°	76.4	1.5
100°-110°	237.7	4.7
110°-120°	232.5	4.6
120°-130°	189.8	3.7
130°-140°	155.3	3.1
140°-150°	121.2	2.4
150°-160°	87.5	1.7
160°-170°	53.5	1.1
170°-180°	18.0	0.4
0°-30°	1371.8	27.0
0°-40°	2155.4	42.4
0°-60°	3382.8	66.5
0°-90°	3917.2	77.0
90°-120°	546.6	10.7
90°-150°	1012.9	19.9
90°-180°	1172.0	23.0
0°-180°	5089.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1765	1765	1765	1765	1765	
5°	1747	1775	1760	1762	1777	166
15°	1696	1729	1728	1740	1748	479
25°	1584	1618	1585	1519	1495	729
35°	1410	1396	1242	1134	1103	880
45°	1146	1055	879	769	735	879
55°	792	716	563	442	414	707
65°	457	419	311	250	234	453
75°	178	191	146	123	119	196
85°	30	38	32	22	20	38
90°	0	1	4	4	4	2
95°	10	31	140	52	34	12
105°	42	59	234	447	426	44
115°	74	88	190	392	459	73
125°	103	114	188	308	361	91
135°	124	138	186	266	299	96
145°	145	156	186	230	250	91
155°	166	171	188	206	213	76
165°	182	183	189	195	197	51
175°	189	189	189	190	189	18
180°	189	189	189	189	189	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1765.2	1765.2	1765.2	1765.2	1765.2
2.5°	1753.1	1775.5	1761.3	1762.7	1766.6
5°	1746.7	1774.7	1760.2	1762.2	1777.0
7.5°	1738.0	1766.3	1755.4	1761.5	1776.0
10°	1729.9	1759.5	1750.1	1758.8	1772.0
12.5°	1719.2	1750.1	1743.4	1753.5	1766.6
15°	1696.4	1729.2	1728.3	1740.2	1748.5
17.5°	1669.8	1702.7	1701.0	1704.2	1708.1
20°	1650.9	1683.8	1679.5	1667.7	1667.7
22.5°	1624.0	1659.5	1648.6	1616.4	1605.9
25°	1583.7	1618.2	1585.4	1519.2	1494.6
27.5°	1536.6	1564.6	1498.6	1404.7	1370.5
30°	1503.0	1524.3	1427.4	1324.0	1291.1
32.5°	1468.1	1476.2	1354.7	1247.3	1211.8
35°	1410.5	1395.7	1242.4	1134.1	1102.8
37.5°	1342.5	1298.5	1134.5	1021.0	986.5
40°	1292.8	1230.3	1059.1	945.7	911.2
42.5°	1237.7	1159.5	987.9	874.4	838.6
45°	1146.5	1054.6	879.3	769.2	734.7
47.5°	1044.0	952.6	777.7	671.2	641.6
50°	970.1	881.3	714.5	607.8	571.6
52.5°	894.7	815.2	652.6	543.0	493.5
55°	791.9	716.3	563.2	441.6	413.6
57.5°	686.0	620.5	482.1	371.6	348.7
60°	618.7	561.1	427.0	334.0	311.0
62.5°	554.1	503.1	373.3	299.2	280.0
65°	457.3	419.4	311.0	250.1	233.7
67.5°	363.1	342.0	258.6	205.2	194.4
70°	302.7	296.0	223.6	179.7	171.4
72.5°	250.2	252.8	190.0	155.6	150.0
75°	178.2	191.4	146.3	122.6	119.3
77.5°	121.4	141.1	108.3	90.7	88.1
80°	89.2	108.8	84.0	70.6	70.6
82.5°	62.2	78.0	59.9	53.1	53.1
85°	30.3	38.5	31.9	21.8	20.2
87.5°	8.0	12.2	6.1	4.8	4.8
90°	0.0	1.2	3.5	3.5	3.5
92.5°	3.7	12.9	44.3	14.6	11.8
95°	10.4	30.8	140.2	51.7	33.6
97.5°	19.0	40.1	232.1	144.5	91.0
100°	25.5	44.8	261.7	244.9	163.3
102.5°	31.9	50.3	256.3	349.7	274.6
105°	41.7	58.7	234.0	446.7	426.3
107.5°	51.4	67.2	212.7	454.2	476.5
110°	57.9	73.8	201.5	443.4	487.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	64.4	79.4	196.0	424.3	480.3
115°	74.1	87.8	190.0	391.9	458.7
117.5°	83.7	96.1	187.4	360.9	429.3
120°	89.2	101.6	186.5	343.2	408.9
122.5°	94.7	107.2	187.4	328.3	388.5
125°	103.1	114.4	187.6	308.1	361.4
127.5°	109.8	121.3	187.6	293.2	338.4
130°	113.5	126.0	187.6	284.7	325.5
132.5°	118.2	130.6	186.7	277.2	315.2
135°	124.0	137.5	186.5	266.1	298.8
137.5°	130.6	143.1	186.5	254.9	284.7
140°	134.4	146.8	186.5	247.3	274.6
142.5°	139.0	150.6	186.5	239.8	264.3
145°	144.7	156.2	186.5	229.8	250.2
147.5°	151.7	161.5	187.6	220.5	236.6
150°	156.4	164.3	187.6	215.7	228.2
152.5°	160.1	167.1	187.6	211.1	221.7
155°	165.6	171.3	187.6	206.4	213.2
157.5°	171.2	175.5	187.6	202.1	206.4
160°	174.9	178.3	187.6	199.3	202.7
162.5°	177.7	180.2	187.6	197.4	200.0
165°	181.8	183.0	188.8	194.6	197.0
167.5°	184.4	184.6	187.6	193.0	194.2
170°	185.3	186.5	187.6	191.1	192.3
172.5°	187.2	187.4	188.6	190.2	190.4
175°	188.8	188.8	188.8	190.0	188.8
177.5°	188.8	188.8	188.8	188.8	188.8
180°	188.8	188.8	188.8	188.8	188.8



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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	20.92	22.03	21.62	22.73	23.56	17.41	18.51	18.10	19.22	20.05
	3H	22.26	23.25	22.97	23.96	24.83	18.63	19.62	19.34	20.33	21.20
	4H	22.65	23.58	23.38	24.30	25.18	19.09	20.02	19.82	20.74	21.62
	6H	22.86	23.72	23.60	24.45	25.34	19.42	20.27	20.16	21.01	21.90
	8H	22.90	23.72	23.65	24.47	25.36	19.50	20.31	20.25	21.07	21.96
	12H	22.91	23.68	23.66	24.43	25.35	19.52	20.29	20.28	21.04	21.96
4H	2H	21.06	21.98	21.79	22.71	23.58	18.12	19.05	18.85	19.77	20.65
	3H	22.62	23.39	23.37	24.15	25.05	19.53	20.30	20.27	21.06	21.95
	4H	23.14	23.83	23.90	24.60	25.52	20.09	20.78	20.84	21.55	22.47
	6H	23.49	24.09	24.26	24.87	25.81	20.50	21.10	21.28	21.89	22.82
	8H	23.57	24.13	24.35	24.91	25.85	20.61	21.17	21.39	21.96	22.90
	12H	23.59	24.10	24.39	24.90	25.85	20.65	21.15	21.45	21.96	22.90
8H	4H	23.20	23.76	23.98	24.54	25.48	20.43	20.99	21.21	21.78	22.72
	6H	23.64	24.10	24.45	24.93	25.87	20.94	21.41	21.75	22.23	23.18
	8H	23.79	24.20	24.61	25.02	25.98	21.11	21.52	21.93	22.35	23.30
	12H	23.86	24.23	24.69	25.04	26.06	21.18	21.54	22.00	22.36	23.38
12H	4H	23.17	23.67	23.97	24.48	25.42	20.46	20.96	21.26	21.77	22.71
	6H	23.63	24.04	24.45	24.87	25.83	21.01	21.42	21.83	22.25	23.21
	8H	23.81	24.17	24.63	24.98	26.00	21.21	21.57	22.03	22.38	23.40