

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: P855288

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855288
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-075U-075D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

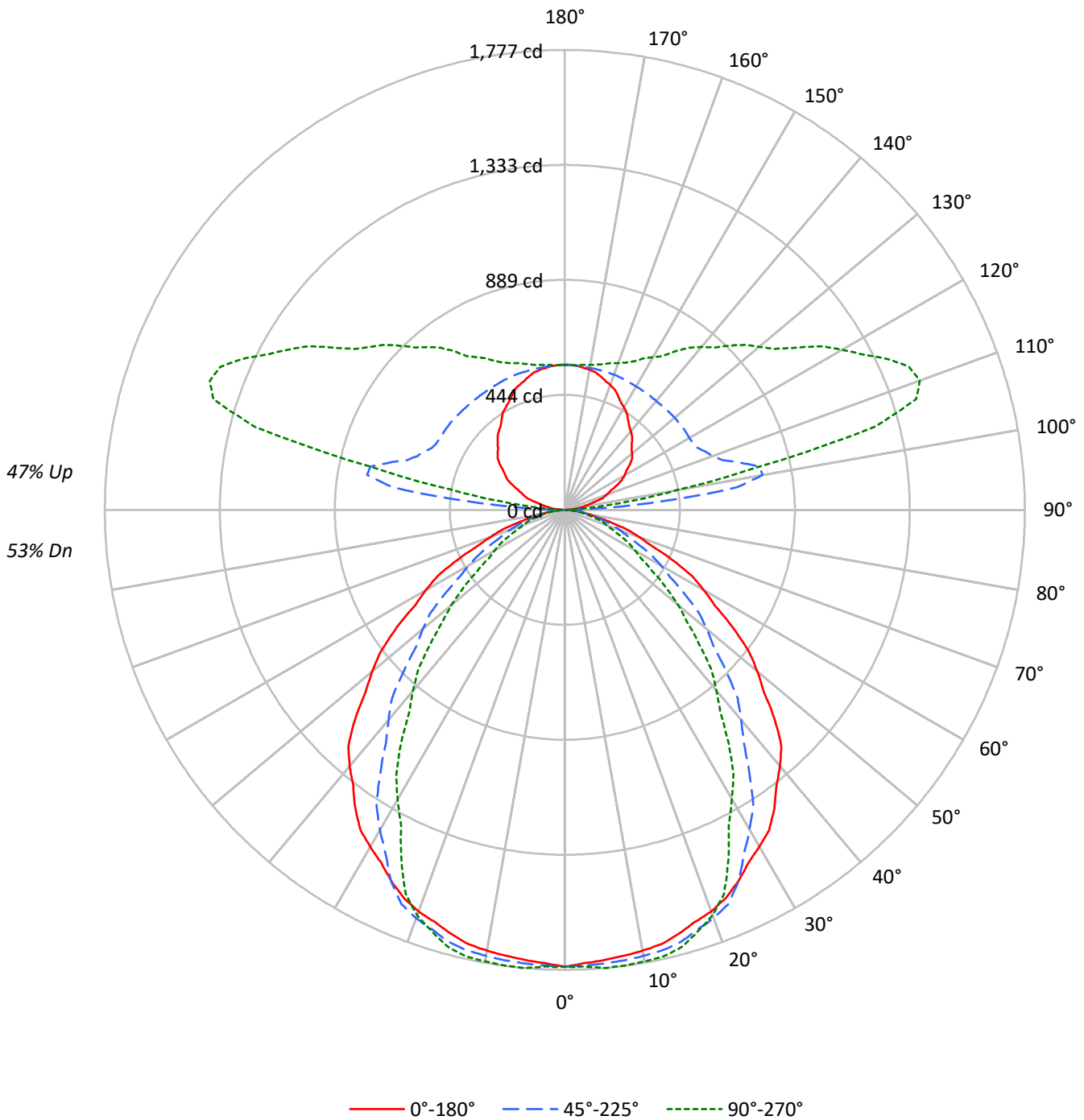
Lumens per Lamp: N/A
Luminaire Lumens: 7386.2 lumens
Efficiency: N/A
Efficacy: 147.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50
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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	99	95	91	88	92	88	85	82	75	73	71	64	62	61	53	52	51	46
2	91	84	78	73	84	78	73	68	67	63	60	57	54	52	47	46	44	39
3	83	74	67	61	77	69	63	58	60	55	51	51	47	44	43	40	38	34
4	76	66	58	52	71	62	55	50	53	48	44	46	42	39	38	36	33	30
5	70	59	51	45	65	55	48	43	48	42	38	41	37	34	35	32	29	26
6	65	53	45	40	60	50	43	38	43	38	34	37	33	30	32	29	26	23
7	60	48	40	35	56	45	38	33	40	34	30	34	30	27	29	26	23	21
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	27	24	21	19
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	22	19	17
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	18	16

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	2.3
10°-20°	487.0	6.6
20°-30°	716.7	9.7
30°-40°	783.6	10.6
40°-50°	703.0	9.5
50°-60°	524.4	7.1
60°-70°	331.4	4.5
70°-80°	164.2	2.2
80°-90°	39.0	0.5
90°-100°	211.9	2.9
100°-110°	702.4	9.5
110°-120°	697.1	9.4
120°-130°	567.8	7.7
130°-140°	461.5	6.2
140°-150°	358.4	4.9
150°-160°	258.2	3.5
160°-170°	158.1	2.1
170°-180°	53.4	0.7
0°-30°	1371.8	18.6
0°-40°	2155.4	29.2
0°-60°	3382.8	45.8
0°-90°	3917.3	53.0
90°-120°	1611.4	21.8
90°-150°	2999.1	40.6
90°-180°	3469.0	47.0
0°-180°	7386.2	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	5	5	2
95°	30	89	384	137	92	35
105°	123	175	703	1326	1240	130
115°	219	262	566	1178	1378	217
125°	306	340	556	926	1092	272
135°	366	404	551	795	897	284
145°	426	457	550	684	748	267
155°	486	503	553	611	633	224
165°	534	539	556	578	583	150
175°	558	558	559	562	561	53
180°	560	560	560	560	560	



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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	5.0	5.0
90°	0.0	1.2	3.5	4.7	4.7
92.5°	9.3	35.8	105.6	34.3	28.8
95°	30.2	89.2	384.0	137.1	91.6
97.5°	55.5	117.1	670.2	390.9	247.1
100°	73.1	132.0	776.0	666.5	441.9
102.5°	92.5	149.8	769.5	1018.6	769.5
105°	122.9	175.2	703.0	1326.2	1240.0
107.5°	154.1	200.6	639.1	1357.5	1423.1
110°	171.7	218.2	606.7	1326.5	1459.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	190.2	235.9	587.1	1271.7	1440.7
115°	219.2	262.3	566.0	1178.5	1378.0
117.5°	248.0	286.3	558.3	1089.3	1298.7
120°	265.6	303.0	555.7	1033.5	1236.5
122.5°	281.4	317.9	555.7	987.7	1175.3
125°	306.3	340.3	555.7	925.9	1091.5
127.5°	326.7	360.0	554.3	879.2	1020.8
130°	338.7	373.9	553.3	851.9	978.9
132.5°	349.9	385.9	552.4	829.4	943.7
135°	366.5	403.9	551.0	794.6	896.7
137.5°	384.6	420.7	549.6	760.9	851.0
140°	396.7	431.9	548.7	738.4	821.3
142.5°	407.9	442.0	549.6	716.0	789.7
145°	425.7	457.4	549.8	683.5	748.2
147.5°	445.0	471.5	550.1	656.0	704.1
150°	457.1	480.8	551.0	640.0	680.9
152.5°	468.1	491.1	551.9	626.9	659.5
155°	486.0	503.0	553.3	610.7	633.3
157.5°	503.5	516.6	554.7	599.1	615.2
160°	512.7	524.1	555.7	590.7	603.2
162.5°	522.0	530.6	555.7	585.0	594.8
165°	533.5	539.2	555.7	577.8	583.4
167.5°	544.2	547.2	556.8	571.3	574.2
170°	549.8	551.0	556.8	568.4	569.5
172.5°	553.6	554.6	557.6	565.6	565.8
175°	557.9	557.9	559.0	562.5	561.4
177.5°	560.2	560.2	559.3	561.1	559.3
180°	560.2	560.2	560.2	560.2	560.2



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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	18.97	19.82	19.91	20.77	22.00	15.46	16.31	16.40	17.26	18.49
	3H	20.29	21.05	21.25	22.01	23.27	16.66	17.42	17.61	18.38	19.64
	4H	20.67	21.38	21.63	22.35	23.61	17.11	17.83	18.08	18.79	20.05
	6H	20.87	21.53	21.85	22.50	23.77	17.43	18.08	18.40	19.05	20.33
	8H	20.90	21.53	21.89	22.52	23.79	17.50	18.13	18.48	19.11	20.39
	12H	20.90	21.50	21.89	22.48	23.77	17.51	18.11	18.50	19.09	20.38
4H	2H	19.08	19.79	20.05	20.76	22.02	16.14	16.86	17.11	17.82	19.08
	3H	20.62	21.21	21.60	22.21	23.48	17.53	18.12	18.51	19.12	20.39
	4H	21.13	21.67	22.12	22.66	23.96	18.07	18.61	19.06	19.60	20.90
	6H	21.46	21.92	22.46	22.94	24.23	18.48	18.94	19.48	19.95	21.25
	8H	21.54	21.97	22.54	22.98	24.29	18.58	19.02	19.58	20.02	21.33
	12H	21.55	21.94	22.57	22.96	24.28	18.60	18.99	19.62	20.01	21.33
8H	4H	21.17	21.60	22.17	22.60	23.92	18.40	18.83	19.40	19.84	21.15
	6H	21.60	21.96	22.63	23.01	24.32	18.90	19.26	19.93	20.31	21.62
	8H	21.75	22.06	22.78	23.09	24.42	19.07	19.38	20.10	20.42	21.75
	12H	21.81	22.09	22.85	23.12	24.49	19.13	19.41	20.16	20.43	21.81
12H	4H	21.12	21.52	22.14	22.54	23.85	18.41	18.81	19.43	19.83	21.14
	6H	21.59	21.91	22.63	22.94	24.27	18.97	19.29	20.00	20.32	21.65
	8H	21.75	22.03	22.79	23.06	24.43	19.15	19.43	20.19	20.46	21.83