

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: P855292

Luminaire Tested: SQ2-PW1-050U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855292
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-840-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

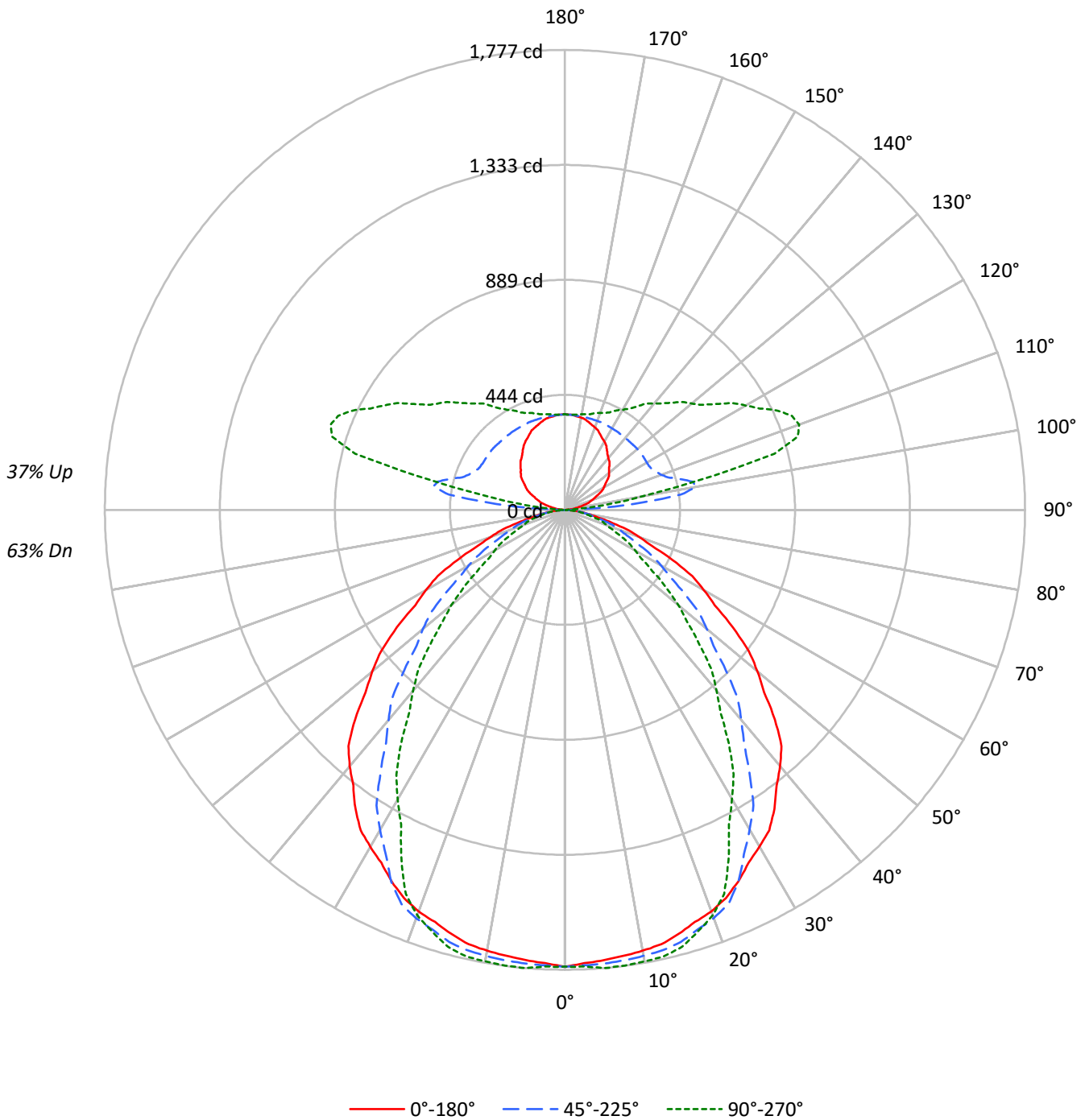
Lumens per Lamp: N/A
Luminaire Lumens: 6207.9 lumens
Efficiency: N/A
Efficacy: 149.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	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°	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	2.7
10°-20°	487.0	7.8
20°-30°	716.7	11.5
30°-40°	783.6	12.6
40°-50°	703.0	11.3
50°-60°	524.4	8.4
60°-70°	331.4	5.3
70°-80°	164.2	2.6
80°-90°	38.9	0.6
90°-100°	146.9	2.4
100°-110°	466.0	7.5
110°-120°	456.9	7.4
120°-130°	371.8	6.0
130°-140°	303.2	4.9
140°-150°	236.4	3.8
150°-160°	170.3	2.7
160°-170°	104.0	1.7
170°-180°	35.1	0.6
0°-30°	1371.8	22.1
0°-40°	2155.4	34.7
0°-60°	3382.8	54.5
0°-90°	3917.2	63.1
90°-120°	1069.8	17.2
90°-150°	1981.2	31.9
90°-180°	2291.0	36.9
0°-180°	6207.9	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°	20	59	267	99	64	23
105°	81	114	459	875	839	86
115°	145	172	371	771	907	143
125°	201	224	365	604	712	179
135°	242	266	363	520	586	187
145°	283	305	363	449	488	177
155°	322	334	364	400	416	149
165°	352	355	365	379	383	99
175°	368	367	368	370	369	35
180°	369	369	369	369	369	



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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°	6.5	25.8	82.4	27.4	19.2
95°	19.7	59.4	266.8	98.9	63.7
97.5°	36.7	77.0	451.9	282.4	173.3
100°	48.7	87.3	515.0	469.5	305.1
102.5°	61.8	98.5	503.9	689.6	527.8
105°	81.2	114.1	459.4	875.0	838.6
107.5°	100.7	131.1	416.9	894.3	943.3
110°	113.6	143.1	395.5	872.1	962.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	126.7	154.3	383.5	833.6	948.9
115°	145.0	172.2	371.2	771.0	907.1
117.5°	162.8	188.7	366.3	710.7	847.9
120°	174.0	198.9	365.4	673.5	806.2
122.5°	185.2	209.2	365.4	643.5	767.2
125°	200.7	224.5	365.4	604.5	712.2
127.5°	214.3	237.3	365.4	574.2	666.0
130°	222.7	246.5	365.4	556.4	639.1
132.5°	231.1	254.9	364.4	542.3	616.8
135°	242.4	266.3	363.0	520.0	585.8
137.5°	253.6	278.5	362.8	498.8	557.5
140°	261.0	286.0	361.9	483.8	537.0
142.5°	270.3	294.3	362.8	468.8	518.5
145°	283.1	304.6	363.0	448.7	488.3
147.5°	295.8	314.2	363.3	430.8	463.2
150°	305.1	319.8	364.2	420.5	446.6
152.5°	312.4	325.4	364.2	412.1	433.6
155°	322.5	333.8	364.2	400.5	416.4
157.5°	333.2	340.9	365.4	393.4	404.4
160°	338.7	345.5	365.4	388.8	397.9
162.5°	344.3	349.3	365.4	385.0	391.3
165°	351.5	354.9	365.4	379.3	382.8
167.5°	358.2	359.1	366.5	375.5	378.4
170°	361.9	361.9	366.5	373.5	374.7
172.5°	363.7	364.7	366.5	371.6	371.9
175°	367.7	366.6	367.7	370.0	368.8
177.5°	368.8	367.9	367.9	369.8	367.9
180°	368.8	368.8	368.8	368.8	368.8

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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	19.84	20.78	20.68	21.64	22.71	16.32	17.27	17.17	18.13	19.20
	3H	21.17	22.01	22.02	22.88	23.98	17.54	18.38	18.39	19.25	20.35
	4H	21.54	22.34	22.42	23.21	24.33	17.99	18.78	18.86	19.66	20.77
	6H	21.75	22.48	22.64	23.37	24.49	18.31	19.04	19.19	19.92	21.05
	8H	21.79	22.48	22.68	23.38	24.51	18.38	19.08	19.28	19.98	21.10
	12H	21.79	22.45	22.69	23.34	24.49	18.40	19.06	19.30	19.95	21.10
4H	2H	19.95	20.74	20.83	21.62	22.73	17.02	17.81	17.90	18.69	19.80
	3H	21.50	22.16	22.39	23.07	24.20	18.41	19.07	19.30	19.98	21.11
	4H	22.02	22.61	22.92	23.52	24.67	18.96	19.56	19.86	20.46	21.62
	6H	22.35	22.87	23.27	23.80	24.95	19.37	19.88	20.29	20.81	21.97
	8H	22.43	22.91	23.35	23.84	25.00	19.48	19.96	20.39	20.88	22.05
	12H	22.45	22.88	23.39	23.83	25.00	19.50	19.93	20.44	20.88	22.05
8H	4H	22.06	22.54	22.98	23.46	24.63	19.29	19.77	20.21	20.70	21.87
	6H	22.50	22.90	23.44	23.86	25.03	19.80	20.20	20.75	21.16	22.33
	8H	22.64	22.99	23.60	23.95	25.14	19.97	20.32	20.92	21.27	22.46
	12H	22.71	23.02	23.67	23.97	25.21	20.03	20.34	20.99	21.29	22.52
12H	4H	22.02	22.45	22.96	23.40	24.57	19.31	19.74	20.25	20.69	21.86
	6H	22.49	22.84	23.44	23.80	24.98	19.87	20.22	20.82	21.17	22.36
	8H	22.66	22.96	23.61	23.91	25.15	20.06	20.37	21.01	21.31	22.55