

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: P855316

Luminaire Tested: SQ2-PR1-075U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855316  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-075U-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: -

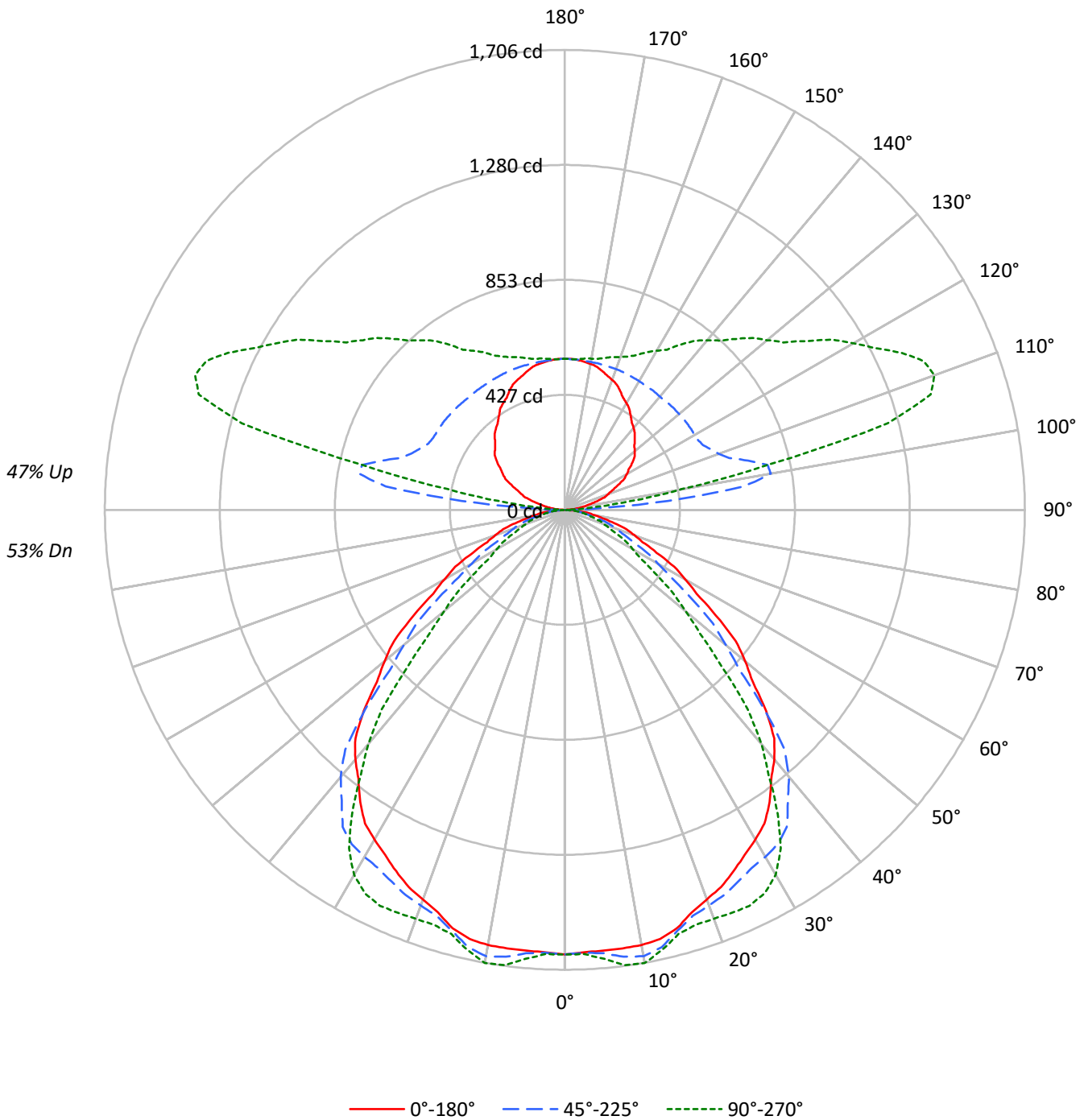
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7436.9 lumens  
Efficiency: N/A  
Efficacy: 148.7 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): 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	50	30	10	0	
RCR																						
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53				53
1	99	95	91	88	92	88	85	82	76	73	71	64	63	61	53	52	51	46				46
2	91	84	78	73	84	78	73	69	67	63	60	57	54	52	48	46	44	40				40
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	40	38	34				34
4	76	66	58	53	71	62	55	50	53	48	44	46	42	39	39	36	34	30				30
5	70	59	51	45	65	55	48	43	48	43	38	41	37	34	35	32	30	26				26
6	65	53	45	40	60	50	43	38	44	38	34	38	33	30	32	29	26	23				23
7	60	48	40	35	56	45	38	33	40	34	30	34	30	27	29	26	23	21				21
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	27	24	21	19				19
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	22	19	17				17
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	17	15				15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	26629	26629	26629
5°	26595	26757	27084
10°	26873	27563	27976
15°	26865	27005	27231
20°	26431	26837	27732
25°	26357	27104	28871
30°	26329	27706	29149
35°	26079	28300	27139
40°	25478	27248	23882
45°	24106	23914	18886
50°	21916	19552	14654
55°	19260	16090	11406
60°	16669	12868	9394
65°	14384	10663	8222
70°	12935	9446	7298
75°	11853	8178	6712
80°	10312	6564	6564
85°	7466	5910	3112

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 26060 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.3	2.1
10°-20°	461.0	6.2
20°-30°	712.7	9.6
30°-40°	857.2	11.5
40°-50°	769.7	10.3
50°-60°	515.6	6.9
60°-70°	299.9	4.0
70°-80°	154.0	2.1
80°-90°	38.6	0.5
90°-100°	211.9	2.8
100°-110°	702.4	9.4
110°-120°	697.1	9.4
120°-130°	567.8	7.6
130°-140°	461.5	6.2
140°-150°	358.4	4.8
150°-160°	258.2	3.5
160°-170°	158.1	2.1
170°-180°	53.4	0.7
0°-30°	1333.0	17.9
0°-40°	2190.2	29.5
0°-60°	3475.5	46.7
0°-90°	3968.0	53.4
90°-120°	1611.4	21.7
90°-150°	2999.1	40.3
90°-180°	3469.0	46.6
0°-180°	7436.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1641	1669	1651	1655	1671	157
15°	1607	1673	1616	1621	1629	451
25°	1480	1539	1521	1578	1621	682
35°	1323	1335	1436	1408	1377	825
45°	1056	1141	1047	883	827	808
55°	684	710	572	441	405	615
65°	376	385	279	227	215	381
75°	190	185	131	111	108	202
85°	40	32	32	22	17	50
90°	0	1	4	5	5	3
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°	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1642.5	1662.2	1643.9	1645.3	1649.3
5°	1640.9	1668.7	1650.9	1654.6	1671.1
7.5°	1640.5	1680.3	1671.8	1682.0	1703.7
10°	1639.1	1686.8	1681.2	1683.4	1706.4
12.5°	1631.1	1686.7	1661.0	1658.9	1671.4
15°	1607.2	1672.9	1615.6	1620.8	1629.1
17.5°	1565.1	1633.9	1579.4	1597.9	1614.0
20°	1538.3	1605.7	1561.9	1586.0	1614.0
22.5°	1514.1	1581.4	1545.7	1579.5	1617.9
25°	1479.5	1538.6	1521.4	1578.0	1620.6
27.5°	1443.1	1478.0	1498.2	1574.0	1603.8
30°	1412.2	1435.2	1486.1	1552.0	1563.5
32.5°	1378.6	1392.4	1470.0	1504.3	1489.5
35°	1323.1	1334.6	1435.8	1408.2	1376.9
37.5°	1257.2	1280.9	1358.7	1279.3	1243.4
40°	1208.8	1248.3	1292.8	1174.3	1133.1
42.5°	1149.6	1212.7	1205.4	1054.3	1004.0
45°	1055.7	1141.3	1047.3	883.0	827.1
47.5°	945.1	1032.9	879.3	732.5	680.2
50°	872.5	943.3	778.4	640.9	583.4
52.5°	798.5	849.6	692.4	555.0	502.6
55°	684.2	710.5	571.6	441.3	405.2
57.5°	579.3	596.1	467.0	356.5	329.8
60°	516.2	527.6	398.5	312.2	290.9
62.5°	458.2	467.2	343.3	274.7	258.6
65°	376.5	384.8	279.1	226.7	215.2
67.5°	311.7	315.9	229.7	188.3	177.5
70°	274.0	275.7	200.1	162.9	154.6
72.5°	240.4	238.1	171.8	141.5	135.9
75°	190.0	185.1	131.1	110.8	107.6
77.5°	141.9	136.6	92.2	85.4	85.4
80°	110.9	104.4	70.6	70.6	70.6
82.5°	82.7	73.5	54.4	54.4	53.1
85°	40.3	32.2	31.9	21.8	16.8
87.5°	10.7	11.0	4.8	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	18.49	19.34	19.43	20.29	21.51	15.22	16.07	16.15	17.01	18.24
	3H	19.72	20.48	20.67	21.44	22.69	16.28	17.04	17.23	18.00	19.25
	4H	20.18	20.89	21.14	21.85	23.11	16.68	17.40	17.64	18.36	19.62
	6H	20.49	21.15	21.47	22.12	23.39	17.01	17.67	17.99	18.64	19.91
	8H	20.57	21.20	21.56	22.18	23.45	17.10	17.72	18.08	18.71	19.97
	12H	20.60	21.20	21.59	22.17	23.47	17.10	17.70	18.09	18.68	19.97
4H	2H	18.57	19.28	19.54	20.25	21.50	15.78	16.50	16.75	17.46	18.72
	3H	20.04	20.63	21.02	21.62	22.90	17.05	17.64	18.03	18.63	19.91
	4H	20.63	21.17	21.62	22.16	23.46	17.56	18.10	18.54	19.08	20.38
	6H	21.09	21.55	22.09	22.56	23.85	17.99	18.45	18.99	19.46	20.76
	8H	21.22	21.65	22.22	22.65	23.96	18.11	18.55	19.11	19.55	20.86
	12H	21.27	21.66	22.29	22.68	23.99	18.13	18.52	19.15	19.54	20.86
8H	4H	20.66	21.09	21.66	22.09	23.40	17.86	18.29	18.86	19.29	20.60
	6H	21.21	21.57	22.23	22.61	23.92	18.40	18.75	19.42	19.80	21.10
	8H	21.41	21.72	22.44	22.75	24.08	18.58	18.89	19.61	19.93	21.25
	12H	21.51	21.79	22.54	22.81	24.18	18.64	18.92	19.68	19.94	21.31
12H	4H	20.62	21.01	21.64	22.03	23.34	17.88	18.27	18.89	19.28	20.60
	6H	21.19	21.51	22.23	22.54	23.87	18.45	18.77	19.49	19.80	21.13
	8H	21.41	21.68	22.44	22.71	24.08	18.66	18.94	19.70	19.96	21.33