

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: P854093

Luminaire Tested: SQ2-PP3-050U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854093  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-050U-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

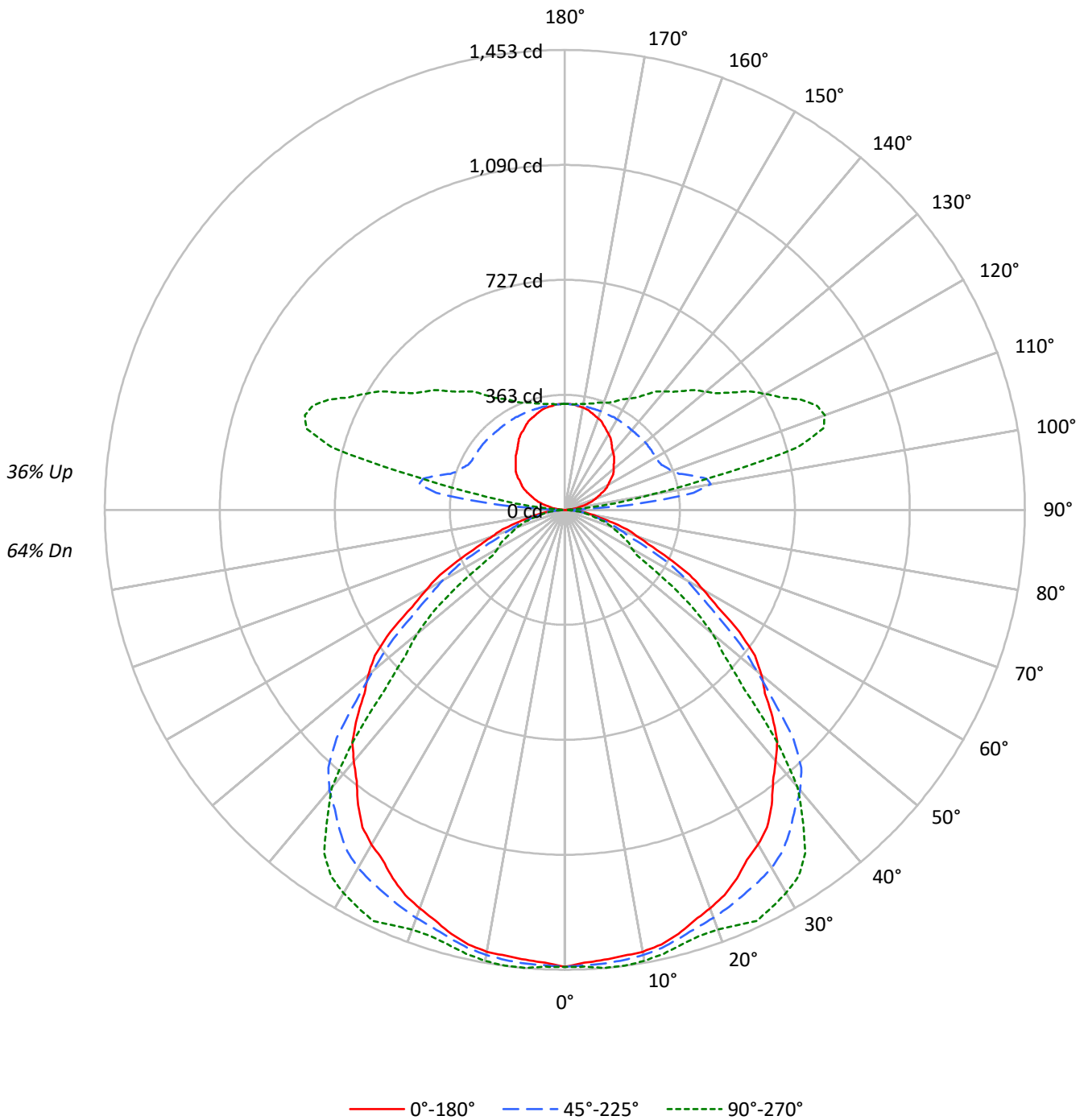
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5714.9 lumens  
Efficiency: N/A  
Efficacy: 137.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4  
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	104	104	104	104	91	91	91	79	79	79	69	69	69	64				
1	102	97	94	90	95	92	88	86	81	78	76	71	69	68	62	61	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	65	60	64	59	55	56	52	49	49	47	44	41				
4	78	68	60	54	73	64	57	52	57	51	47	50	46	43	44	41	38	35				
5	72	61	52	47	67	57	50	45	51	45	41	46	41	37	40	37	34	31				
6	67	54	46	41	62	52	44	39	46	40	36	41	37	33	37	33	30	27				
7	62	49	41	36	58	47	40	34	42	36	32	38	33	29	33	30	27	24				
8	57	45	37	32	54	43	36	31	38	33	28	34	30	26	31	27	24	22				
9	53	41	34	29	50	39	32	28	35	30	26	32	27	24	28	24	22	20				
10	50	38	31	26	47	36	29	25	33	27	23	29	25	21	26	22	20	18				

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

	0°	45°	90°
0°	23307	23307	23307
5°	23123	23321	23545
10°	23241	23417	23717
15°	23186	23415	23773
20°	23021	23570	24252
25°	22889	23868	25525
30°	22758	24352	26058
35°	22436	24421	26106
40°	21838	24378	24120
45°	21185	23274	18363
50°	20353	19854	15292
55°	18942	16709	10995
60°	16311	14338	7882
65°	13757	11075	7752
70°	11452	8714	7421
75°	9707	7517	6949
80°	8229	6527	6239
85°	6502	5372	3390

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 23274 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.4	2.4
10°-20°	397.8	7.0
20°-30°	623.2	10.9
30°-40°	768.8	13.5
40°-50°	723.8	12.7
50°-60°	512.5	9.0
60°-70°	292.0	5.1
70°-80°	144.5	2.5
80°-90°	35.7	0.6
90°-100°	133.3	2.3
100°-110°	423.0	7.4
110°-120°	414.7	7.3
120°-130°	337.5	5.9
130°-140°	275.2	4.8
140°-150°	214.5	3.8
150°-160°	154.6	2.7
160°-170°	94.4	1.7
170°-180°	31.9	0.6
0°-30°	1158.4	20.3
0°-40°	1927.2	33.7
0°-60°	3163.5	55.4
0°-90°	3635.8	63.6
90°-120°	971.1	17.0
90°-150°	1798.2	31.5
90°-180°	2079.0	36.4
0°-180°	5714.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1444	1444	1444	1444	1444	
5°	1427	1452	1439	1442	1453	136
15°	1387	1406	1401	1415	1422	391
25°	1285	1318	1340	1394	1433	592
35°	1138	1170	1239	1310	1324	710
45°	928	998	1019	864	804	714
55°	673	713	594	447	391	594
65°	360	380	290	204	203	362
75°	156	172	120	113	111	169
85°	35	32	29	23	18	41
90°	0	1	3	3	3	2
95°	18	54	242	90	58	21
105°	74	104	417	794	761	78
115°	132	156	337	700	823	130
125°	182	204	332	549	646	162
135°	220	242	330	472	532	170
145°	257	276	330	407	443	161
155°	293	303	331	364	378	135
165°	319	322	332	344	347	90
175°	334	333	334	336	335	32
180°	335	335	335	335	335	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1443.5	1443.5	1443.5	1443.5	1443.5
2.5°	1432.5	1452.8	1439.9	1442.3	1444.7
5°	1426.7	1452.1	1438.9	1442.2	1452.7
7.5°	1421.2	1447.2	1434.4	1439.8	1452.7
10°	1417.6	1440.0	1428.3	1436.1	1446.6
12.5°	1406.6	1427.8	1417.3	1427.5	1436.8
15°	1387.1	1406.5	1400.8	1414.7	1422.2
17.5°	1360.5	1384.1	1384.0	1403.7	1411.5
20°	1339.8	1368.1	1371.8	1396.5	1411.5
22.5°	1317.8	1350.9	1357.1	1394.4	1420.0
25°	1284.8	1317.6	1339.8	1394.0	1432.8
27.5°	1246.4	1278.9	1324.5	1385.3	1416.0
30°	1220.7	1252.1	1306.2	1369.4	1397.7
32.5°	1189.0	1221.5	1279.3	1347.4	1373.3
35°	1138.3	1169.7	1239.0	1309.6	1324.5
37.5°	1080.0	1115.6	1193.3	1232.7	1233.5
40°	1036.1	1082.3	1156.6	1163.8	1144.4
42.5°	993.4	1052.8	1105.4	1073.2	987.0
45°	927.8	997.9	1019.3	863.8	804.2
47.5°	857.9	927.1	893.0	724.5	683.3
50°	810.3	875.9	790.4	647.6	608.8
52.5°	756.5	815.0	698.9	573.9	514.8
55°	672.9	713.2	593.6	447.3	390.6
57.5°	572.2	600.6	507.5	335.8	272.2
60°	505.1	527.5	444.0	275.5	244.1
62.5°	444.0	464.0	378.1	239.3	228.3
65°	360.1	379.5	289.9	204.4	202.9
67.5°	286.6	307.8	222.5	178.5	176.7
70°	242.6	265.0	184.6	160.2	157.2
72.5°	206.0	227.2	156.6	140.6	138.9
75°	155.6	172.1	120.5	112.9	111.4
77.5°	112.9	123.4	89.7	85.7	84.2
80°	88.5	93.0	70.2	68.6	67.1
82.5°	66.5	65.0	53.1	51.5	48.8
85°	35.1	32.1	29.0	22.8	18.3
87.5°	11.0	11.2	5.5	4.3	4.3
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.4	74.8	24.9	17.5
95°	17.9	53.9	242.2	89.8	57.9
97.5°	33.3	69.9	410.2	256.3	157.3
100°	44.2	79.2	467.5	426.2	276.9
102.5°	56.0	89.4	457.4	625.8	479.0
105°	73.7	103.6	416.9	794.2	761.2
107.5°	91.4	119.0	378.4	811.7	856.2
110°	103.2	129.9	359.0	791.5	873.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	115.0	140.1	348.1	756.6	861.2
115°	131.6	156.3	336.9	699.8	823.3
117.5°	147.8	171.3	332.5	645.1	769.6
120°	157.9	180.6	331.6	611.3	731.7
122.5°	168.0	189.9	331.6	584.1	696.4
125°	182.1	203.8	331.6	548.7	646.4
127.5°	194.6	215.4	331.6	521.2	604.5
130°	202.1	223.8	331.6	505.0	580.1
132.5°	209.7	231.3	330.8	492.2	559.9
135°	220.0	241.7	329.5	472.0	531.7
137.5°	230.2	252.8	329.3	452.7	506.0
140°	236.9	259.5	328.5	439.1	487.5
142.5°	245.3	267.1	329.3	425.5	470.6
145°	256.9	276.5	329.5	407.2	443.2
147.5°	268.5	285.2	329.8	391.1	420.5
150°	276.9	290.3	330.6	381.7	405.3
152.5°	283.6	295.4	330.6	374.0	393.6
155°	292.7	303.0	330.6	363.6	378.0
157.5°	302.4	309.4	331.6	357.1	367.0
160°	307.4	313.6	331.6	352.9	361.1
162.5°	312.5	317.0	331.6	349.5	355.2
165°	319.0	322.1	331.6	344.4	347.4
167.5°	325.1	325.9	332.7	340.8	343.4
170°	328.5	328.5	332.7	339.0	340.1
172.5°	330.2	331.0	332.7	337.3	337.5
175°	333.8	332.7	333.8	335.8	334.8
177.5°	334.8	334.0	334.0	335.6	334.0
180°	334.8	334.8	334.8	334.8	334.8

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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	19.67	20.62	20.50	21.48	22.54	16.06	17.02	16.90	17.87	18.94
	3H	20.77	21.62	21.62	22.49	23.58	17.17	18.03	18.03	18.89	19.99
	4H	21.12	21.92	21.98	22.79	23.90	17.64	18.45	18.51	19.32	20.42
	6H	21.34	22.08	22.22	22.95	24.07	17.99	18.73	18.87	19.61	20.73
	8H	21.39	22.09	22.28	22.99	24.10	18.08	18.78	18.97	19.68	20.80
	12H	21.41	22.07	22.30	22.96	24.11	18.10	18.77	18.99	19.66	20.80
4H	2H	19.79	20.59	20.66	21.46	22.57	16.79	17.59	17.66	18.46	19.57
	3H	21.11	21.77	21.99	22.67	23.79	18.05	18.71	18.93	19.62	20.74
	4H	21.58	22.19	22.48	23.09	24.23	18.61	19.21	19.50	20.11	21.26
	6H	21.93	22.45	22.84	23.37	24.52	19.05	19.57	19.96	20.50	21.64
	8H	22.02	22.51	22.93	23.42	24.59	19.17	19.66	20.09	20.58	21.74
	12H	22.06	22.50	22.99	23.44	24.60	19.21	19.64	20.14	20.58	21.75
8H	4H	21.61	22.09	22.52	23.01	24.17	18.89	19.37	19.80	20.29	21.45
	6H	22.04	22.44	22.98	23.40	24.56	19.44	19.84	20.37	20.80	21.96
	8H	22.20	22.55	23.15	23.51	24.68	19.62	19.98	20.57	20.93	22.11
	12H	22.29	22.60	23.24	23.55	24.78	19.70	20.01	20.65	20.96	22.18
12H	4H	21.57	22.01	22.50	22.94	24.11	18.90	19.34	19.83	20.27	21.44
	6H	22.03	22.39	22.98	23.34	24.52	19.49	19.84	20.44	20.80	21.97
	8H	22.21	22.52	23.16	23.46	24.69	19.70	20.01	20.65	20.96	22.19