

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: P855173

Luminaire Tested: SQ2-PH1-025U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

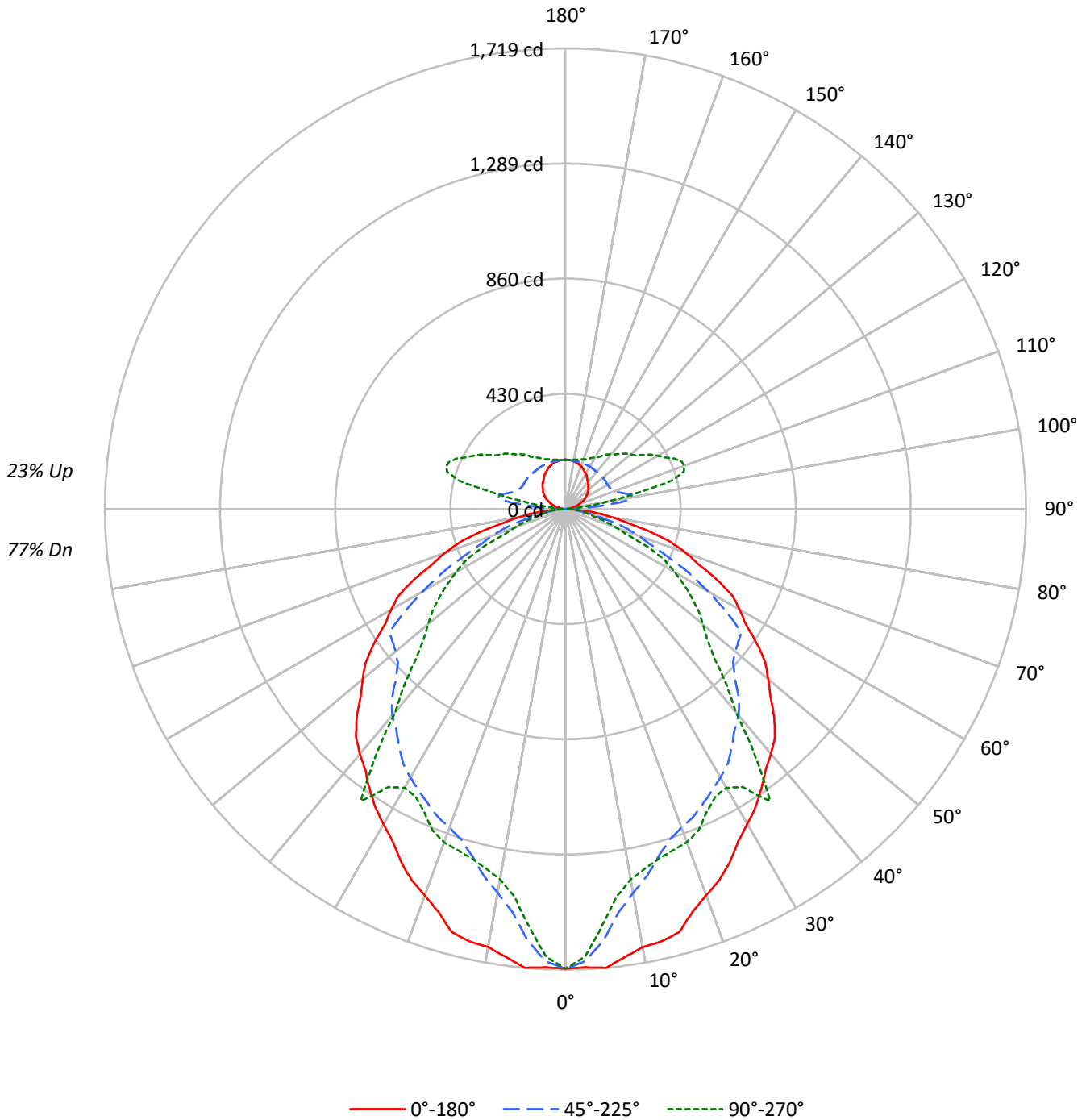
Test Method: LM-79-2019  
Report Number: P855173  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-025U-075D-835-UNV-STD-W-4  
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: 4933.5 lumens  
Efficiency: N/A  
Efficacy: 144.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
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	50	30	10	0	
RCR																						
0	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77				77
1	104	100	96	92	99	95	92	89	87	84	82	79	77	75	72	71	69				66	
2	95	87	81	76	90	84	78	73	76	72	68	70	66	63	64	61	59				55	
3	87	77	70	64	83	74	67	61	68	62	58	62	57	54	57	53	50				47	
4	80	68	60	54	76	66	58	52	60	54	49	55	50	46	51	47	43				40	
5	73	61	53	47	70	59	51	45	54	48	43	50	44	40	46	41	38				35	
6	68	55	47	41	64	53	45	40	49	42	37	45	40	35	42	37	33				31	
7	63	50	42	36	60	48	40	35	44	38	33	41	36	31	38	33	30				27	
8	58	46	37	32	56	44	36	31	41	34	30	38	32	28	35	30	27				25	
9	54	42	34	29	52	40	33	28	37	31	27	35	29	25	32	28	24				22	
10	51	38	31	26	49	37	30	25	35	28	24	32	27	23	30	25	22				20	

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

	0°	45°	90°
0°	27703	27703	27703
5°	27861	26195	25321
10°	27220	23846	23017
15°	27343	22430	22567
20°	26366	21739	22747
25°	25883	21638	22219
30°	25322	21580	22400
35°	25131	21333	26256
40°	25151	21195	20818
45°	25160	20390	17931
50°	24810	20791	16814
55°	24493	22565	16130
60°	24251	19769	15129
65°	23828	16027	13161
70°	22504	13638	9404
75°	20062	10287	7130
80°	16392	6685	6685
85°	10282	6058	4520

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25160 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.0	3.1
10°-20°	397.1	8.0
20°-30°	582.3	11.8
30°-40°	705.1	14.3
40°-50°	693.5	14.1
50°-60°	603.7	12.2
60°-70°	419.7	8.5
70°-80°	199.0	4.0
80°-90°	44.3	0.9
90°-100°	74.2	1.5
100°-110°	230.8	4.7
110°-120°	225.8	4.6
120°-130°	184.3	3.7
130°-140°	150.8	3.1
140°-150°	117.7	2.4
150°-160°	84.9	1.7
160°-170°	51.9	1.1
170°-180°	17.5	0.4
0°-30°	1130.4	22.9
0°-40°	1835.5	37.2
0°-60°	3132.6	63.5
0°-90°	3795.6	76.9
90°-120°	530.8	10.8
90°-150°	983.6	19.9
90°-180°	1138.0	23.1
0°-180°	4933.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1716	1716	1716	1716	1716	
5°	1719	1717	1616	1566	1562	162
15°	1636	1457	1342	1332	1350	456
25°	1453	1236	1215	1252	1247	668
35°	1275	1031	1082	1176	1332	799
45°	1102	816	893	924	785	847
55°	870	635	802	578	573	777
65°	624	437	420	344	344	613
75°	322	223	165	118	114	341
85°	56	36	33	26	24	74
90°	0	1	3	3	3	2
95°	10	30	136	50	33	12
105°	40	57	227	434	414	43
115°	72	85	184	381	445	71
125°	100	111	182	299	351	89
135°	120	134	181	258	290	93
145°	141	152	181	223	243	88
155°	161	166	182	200	207	74
165°	176	178	183	189	191	50
175°	183	183	183	184	183	17
180°	183	183	183	183	183	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1715.8	1715.8	1715.8	1715.8	1715.8
2.5°	1711.9	1729.7	1689.7	1674.0	1671.4
5°	1719.0	1717.4	1616.2	1565.5	1562.3
7.5°	1687.7	1638.2	1517.2	1461.3	1458.8
10°	1660.3	1585.2	1454.5	1403.9	1403.9
12.5°	1653.7	1535.3	1403.6	1366.3	1374.0
15°	1635.8	1457.0	1341.9	1332.5	1350.1
17.5°	1576.4	1383.8	1293.9	1315.3	1335.7
20°	1534.5	1344.6	1265.2	1304.8	1323.9
22.5°	1499.3	1306.8	1244.3	1287.6	1297.9
25°	1452.9	1235.9	1214.6	1252.1	1247.2
27.5°	1397.4	1170.8	1184.9	1207.8	1210.7
30°	1358.2	1131.6	1157.5	1180.8	1201.5
32.5°	1320.4	1086.1	1127.4	1182.7	1230.2
35°	1275.0	1030.7	1082.3	1175.7	1332.1
37.5°	1227.3	965.5	1036.9	1115.5	1165.3
40°	1193.3	918.8	1005.6	1102.6	987.7
42.5°	1156.8	882.2	958.6	1083.8	889.7
45°	1101.9	816.3	893.0	924.1	785.3
47.5°	1037.3	765.0	848.6	770.7	716.3
50°	987.7	730.7	827.7	704.5	669.4
52.5°	939.4	695.2	813.3	649.8	626.3
55°	870.1	635.4	801.6	577.8	573.0
57.5°	796.7	574.8	708.9	515.1	523.4
60°	751.0	535.5	612.2	478.1	468.5
62.5°	702.7	497.4	522.0	431.1	421.5
65°	623.7	436.8	419.5	344.5	344.5
67.5°	536.7	373.9	339.8	281.9	243.5
70°	476.7	333.0	288.9	224.7	199.2
72.5°	412.7	289.5	236.7	184.1	154.8
75°	321.6	222.6	164.9	117.5	114.3
77.5°	232.4	160.4	111.0	87.1	87.5
80°	176.3	122.0	71.9	70.3	71.9
82.5°	124.0	83.9	53.5	55.8	56.1
85°	55.5	36.3	32.7	26.0	24.4
87.5°	11.8	10.8	7.2	7.2	7.2
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.6	43.0	14.1	11.4
95°	10.1	29.9	136.1	50.2	32.6
97.5°	18.4	38.9	225.4	140.3	88.4
100°	24.8	43.5	254.2	237.8	158.5
102.5°	31.0	48.9	248.9	339.6	266.6
105°	40.5	57.0	227.2	433.8	414.0
107.5°	49.9	65.3	206.5	441.0	462.7
110°	56.2	71.6	195.7	430.6	473.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	62.6	77.1	190.3	412.0	466.4
115°	72.0	85.2	184.5	380.6	445.4
117.5°	81.3	93.4	182.0	350.5	416.9
120°	86.6	98.7	181.1	333.3	397.1
122.5°	92.0	104.1	182.0	318.8	377.3
125°	100.2	111.1	182.2	299.2	350.9
127.5°	106.6	117.8	182.2	284.7	328.6
130°	110.2	122.3	182.2	276.5	316.1
132.5°	114.8	126.9	181.3	269.2	306.1
135°	120.4	133.5	181.1	258.4	290.2
137.5°	126.9	139.0	181.1	247.5	276.5
140°	130.5	142.6	181.1	240.1	266.6
142.5°	135.0	146.2	181.1	232.9	256.7
145°	140.6	151.6	181.1	223.2	243.0
147.5°	147.3	156.8	182.2	214.1	229.7
150°	151.9	159.6	182.2	209.5	221.6
152.5°	155.5	162.3	182.2	204.9	215.2
155°	160.8	166.4	182.2	200.4	207.0
157.5°	166.2	170.4	182.2	196.2	200.4
160°	169.9	173.1	182.2	193.5	196.8
162.5°	172.6	175.0	182.2	191.7	194.2
165°	176.5	177.7	183.3	189.0	191.3
167.5°	179.0	179.3	182.2	187.4	188.5
170°	179.9	181.1	182.2	185.6	186.7
172.5°	181.7	182.0	183.1	184.7	184.9
175°	183.3	183.3	183.3	184.5	183.3
177.5°	183.3	183.3	183.3	183.3	183.3
180°	183.3	183.3	183.3	183.3	183.3

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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	21.06	22.22	21.75	22.92	23.75	19.74	20.89	20.42	21.60	22.42
	3H	23.11	24.15	23.81	24.86	25.72	20.79	21.83	21.49	22.54	23.40
	4H	23.86	24.83	24.58	25.56	26.43	21.02	22.00	21.74	22.72	23.60
	6H	24.36	25.26	25.09	25.99	26.88	21.18	22.08	21.91	22.82	23.70
	8H	24.49	25.35	25.23	26.10	26.99	21.22	22.08	21.96	22.83	23.72
	12H	24.54	25.36	25.29	26.11	27.03	21.23	22.05	21.98	22.80	23.71
4H	2H	21.47	22.45	22.20	23.18	24.05	20.41	21.39	21.14	22.12	22.99
	3H	23.61	24.42	24.34	25.18	26.07	21.62	22.43	22.36	23.20	24.09
	4H	24.44	25.17	25.19	25.94	26.86	21.91	22.65	22.66	23.41	24.33
	6H	25.04	25.67	25.81	26.46	27.39	22.13	22.77	22.90	23.56	24.49
	8H	25.21	25.81	25.99	26.59	27.53	22.20	22.79	22.97	23.58	24.52
	12H	25.30	25.83	26.09	26.64	27.58	22.22	22.75	23.01	23.56	24.50
8H	4H	24.48	25.07	25.25	25.86	26.80	22.15	22.74	22.92	23.53	24.47
	6H	25.14	25.63	25.94	26.46	27.40	22.43	22.92	23.24	23.75	24.69
	8H	25.37	25.80	26.18	26.63	27.59	22.54	22.97	23.35	23.80	24.76
	12H	25.49	25.88	26.31	26.70	27.71	22.59	22.98	23.41	23.80	24.81
12H	4H	24.44	24.98	25.24	25.78	26.73	22.16	22.69	22.95	23.50	24.45
	6H	25.12	25.55	25.93	26.38	27.34	22.46	22.90	23.28	23.73	24.69
	8H	25.36	25.75	26.18	26.56	27.58	22.59	22.98	23.41	23.79	24.81