

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: P854007

Luminaire Tested: SQ2-PH1-050U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854007
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-050U-075D-930-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

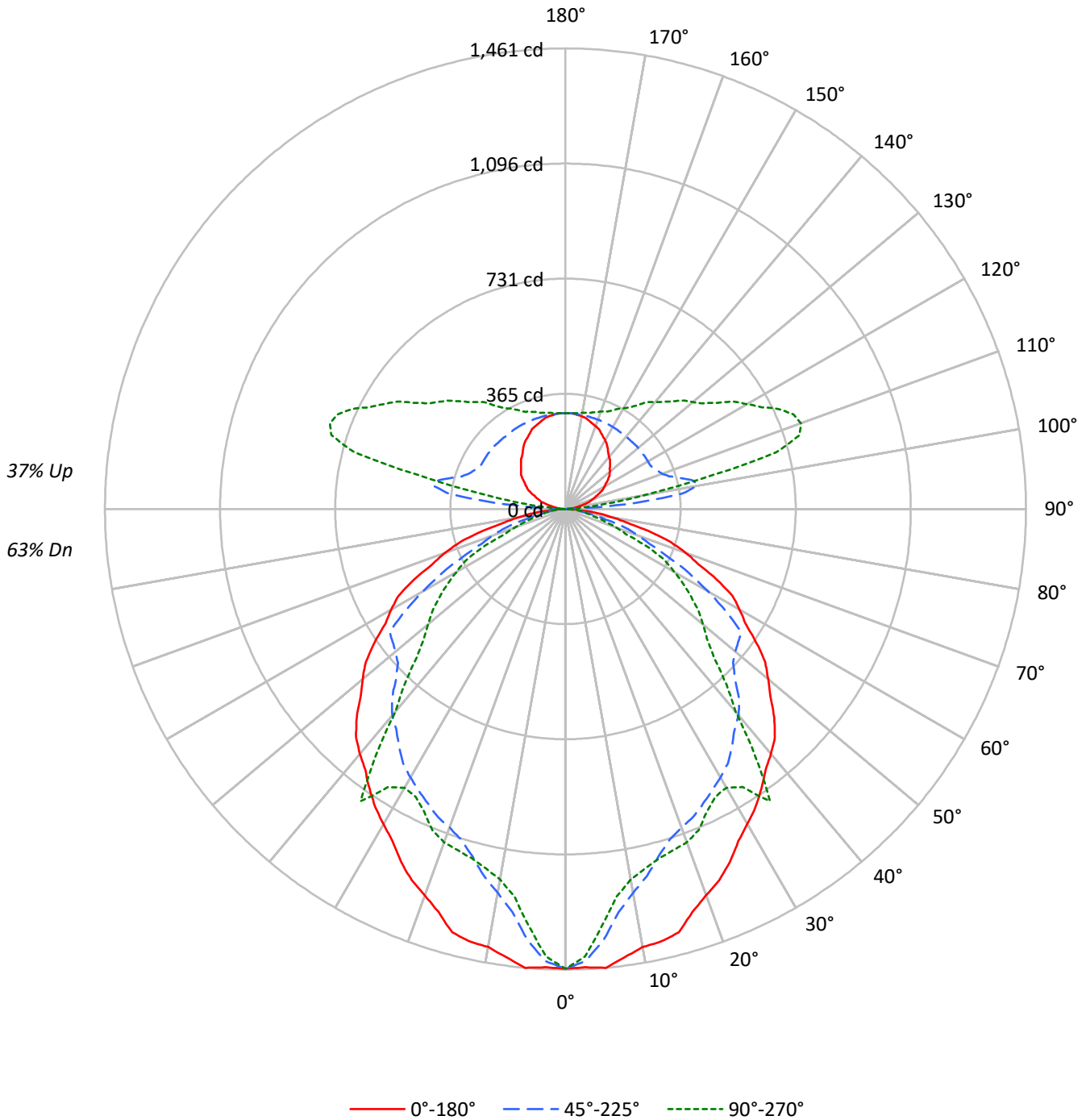
Lumens per Lamp: N/A
Luminaire Lumens: 5116.3 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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

TEST NUMBER: P854007

CATALOG NUMBER: SQ2-PH1-050U-075D-930-UNV-STD-W-4

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
RCR																				
0	110	110	110	110	103	103	103	103	91	91	91	79	79	79	68	68	68	63		
1	101	97	93	89	95	91	88	84	80	77	75	70	68	66	61	59	58	54		
2	92	85	79	73	86	80	74	70	70	66	63	62	59	56	54	51	49	45		
3	84	75	67	61	79	70	64	58	62	57	53	55	51	47	48	45	42	39		
4	77	66	58	52	72	62	55	50	55	50	45	49	44	41	43	39	36	33		
5	71	59	51	45	66	56	48	43	50	44	39	44	39	35	38	35	32	29		
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	25		
7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	22		
8	56	44	36	30	53	41	34	29	37	31	27	33	28	25	29	25	22	20		
9	52	40	32	27	49	38	31	26	34	28	24	30	26	22	27	23	20	18		
10	49	37	29	24	46	35	28	24	31	26	22	28	23	20	25	21	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23544	23544	23544
5°	23679	22263	21520
10°	23135	20267	19562
15°	23238	19064	19179
20°	22409	18476	19333
25°	21998	18390	18884
30°	21522	18340	19039
35°	21358	18132	22316
40°	21376	18014	17692
45°	21384	17328	15239
50°	21084	17668	14290
55°	20816	19175	13709
60°	20609	16801	12859
65°	20248	13624	11186
70°	19124	11594	7992
75°	17049	8740	6057
80°	13928	5672	5672
85°	8744	5132	3853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21384 cd/sqm



TEST NUMBER: P854007

CATALOG NUMBER: SQ2-PH1-050U-075D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	2.5
10°-20°	337.5	6.6
20°-30°	494.9	9.7
30°-40°	599.3	11.7
40°-50°	589.4	11.5
50°-60°	513.0	10.0
60°-70°	356.7	7.0
70°-80°	169.1	3.3
80°-90°	37.7	0.7
90°-100°	121.3	2.4
100°-110°	384.6	7.5
110°-120°	377.1	7.4
120°-130°	306.9	6.0
130°-140°	250.2	4.9
140°-150°	195.1	3.8
150°-160°	140.6	2.7
160°-170°	85.9	1.7
170°-180°	29.0	0.6
0°-30°	960.7	18.8
0°-40°	1560.0	30.5
0°-60°	2662.4	52.0
0°-90°	3225.8	63.0
90°-120°	883.0	17.3
90°-150°	1635.1	32.0
90°-180°	1891.0	37.0
0°-180°	5116.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1461	1460	1374	1330	1328	137
15°	1390	1238	1140	1132	1147	388
25°	1235	1050	1032	1064	1060	568
35°	1084	876	920	999	1132	679
45°	936	694	759	785	667	720
55°	740	540	681	491	487	661
65°	530	371	357	293	293	521
75°	273	189	140	100	97	290
85°	47	31	28	22	21	63
90°	0	1	3	3	3	2
95°	16	49	220	82	53	19
105°	67	94	379	722	692	71
115°	120	142	306	636	749	118
125°	166	185	302	499	588	147
135°	200	220	300	429	483	154
145°	234	251	300	370	403	146
155°	266	276	301	331	344	123
165°	290	293	302	313	316	82
175°	304	302	304	305	304	29
180°	304	304	304	304	304	



TEST NUMBER: P854007

CATALOG NUMBER: SQ2-PH1-050U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1458.2	1458.2	1458.2	1458.2	1458.2
2.5°	1454.9	1470.1	1436.0	1422.7	1420.5
5°	1461.0	1459.6	1373.6	1330.5	1327.8
7.5°	1434.4	1392.3	1289.5	1242.0	1239.8
10°	1411.1	1347.3	1236.2	1193.2	1193.2
12.5°	1405.5	1304.8	1192.9	1161.2	1167.7
15°	1390.2	1238.3	1140.5	1132.5	1147.4
17.5°	1339.7	1176.1	1099.7	1117.9	1135.2
20°	1304.2	1142.8	1075.3	1109.0	1125.2
22.5°	1274.3	1110.6	1057.5	1094.4	1103.0
25°	1234.8	1050.3	1032.3	1064.1	1060.0
27.5°	1187.7	995.0	1007.0	1026.5	1028.9
30°	1154.4	961.7	983.7	1003.5	1021.2
32.5°	1122.2	923.0	958.2	1005.2	1045.6
35°	1083.6	876.0	919.9	999.2	1132.2
37.5°	1043.1	820.6	881.3	948.0	990.4
40°	1014.2	780.9	854.7	937.1	839.4
42.5°	983.2	749.8	814.7	921.1	756.2
45°	936.5	693.7	758.9	785.4	667.4
47.5°	881.6	650.2	721.2	654.9	608.8
50°	839.4	621.0	703.4	598.7	568.9
52.5°	798.4	590.8	691.2	552.3	532.2
55°	739.5	540.1	681.2	491.1	487.0
57.5°	677.1	488.5	602.4	437.8	444.8
60°	638.2	455.1	520.3	406.3	398.2
62.5°	597.2	422.7	443.7	366.4	358.2
65°	530.0	371.3	356.6	292.8	292.8
67.5°	456.2	317.8	288.9	239.6	207.0
70°	405.1	283.0	245.6	191.0	169.3
72.5°	350.8	246.0	201.2	156.5	131.5
75°	273.3	189.2	140.1	99.8	97.1
77.5°	197.6	136.3	94.3	74.1	74.4
80°	149.8	103.7	61.0	59.7	61.0
82.5°	105.4	71.3	45.5	47.5	47.7
85°	47.2	30.9	27.7	22.2	20.8
87.5°	10.0	9.1	6.1	6.1	6.1
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.4	21.3	68.0	22.6	15.9
95°	16.3	49.0	220.2	81.7	52.7
97.5°	30.3	63.6	373.0	233.1	143.0
100°	40.2	72.0	425.1	387.5	251.8
102.5°	50.9	81.3	415.9	569.1	435.6
105°	67.0	94.2	379.1	722.1	692.1
107.5°	83.1	108.2	344.1	738.1	778.5
110°	93.8	118.2	326.4	719.7	794.6



TEST NUMBER: P854007

CATALOG NUMBER: SQ2-PH1-050U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.5	127.4	316.5	688.0	783.1
115°	119.7	142.1	306.3	636.3	748.6
117.5°	134.4	155.8	302.3	586.5	699.8
120°	143.6	164.2	301.6	555.8	665.3
122.5°	152.8	172.6	301.6	531.1	633.2
125°	165.6	185.3	301.6	498.9	587.8
127.5°	176.9	195.8	301.6	473.9	549.7
130°	183.8	203.5	301.6	459.2	527.5
132.5°	190.7	210.4	300.8	447.5	509.1
135°	200.1	219.7	299.6	429.2	483.4
137.5°	209.3	229.9	299.5	411.6	460.1
140°	215.4	236.0	298.7	399.2	443.2
142.5°	223.1	242.9	299.5	386.9	427.9
145°	233.6	251.4	299.6	370.3	403.0
147.5°	244.1	259.3	299.8	355.6	382.4
150°	251.8	263.9	300.6	347.0	368.6
152.5°	257.9	268.6	300.6	340.1	357.8
155°	266.1	275.5	300.6	330.6	343.7
157.5°	274.9	281.3	301.6	324.7	333.7
160°	279.5	285.2	301.6	320.9	328.4
162.5°	284.1	288.3	301.6	317.8	323.0
165°	290.1	292.9	301.6	313.1	315.9
167.5°	295.6	296.4	302.5	309.8	312.3
170°	298.7	298.7	302.5	308.3	309.2
172.5°	300.2	301.0	302.5	306.7	306.9
175°	303.5	302.5	303.5	305.4	304.4
177.5°	304.4	303.7	303.7	305.2	303.7
180°	304.4	304.4	304.4	304.4	304.4



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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	19.43	20.41	20.27	21.27	22.34	18.10	19.09	18.94	19.94	21.02
	3H	21.46	22.34	22.32	23.21	24.31	19.15	20.03	20.00	20.89	21.99
	4H	22.20	23.03	23.07	23.91	25.02	19.37	20.20	20.23	21.07	22.18
	6H	22.69	23.46	23.57	24.34	25.46	19.52	20.28	20.40	21.16	22.29
	8H	22.82	23.55	23.71	24.45	25.57	19.55	20.28	20.44	21.18	22.30
	12H	22.87	23.56	23.76	24.46	25.61	19.55	20.25	20.45	21.14	22.29
4H	2H	19.82	20.65	20.69	21.53	22.64	18.76	19.59	19.63	20.47	21.58
	3H	21.94	22.63	22.82	23.54	24.66	19.95	20.64	20.83	21.55	22.67
	4H	22.76	23.39	23.65	24.29	25.44	20.23	20.86	21.13	21.76	22.92
	6H	23.35	23.89	24.26	24.82	25.97	20.45	20.99	21.36	21.92	23.07
	8H	23.52	24.03	24.44	24.95	26.12	20.51	21.01	21.42	21.93	23.10
	12H	23.60	24.05	24.53	24.99	26.16	20.52	20.97	21.45	21.91	23.09
8H	4H	22.78	23.29	23.70	24.21	25.38	20.46	20.96	21.37	21.88	23.05
	6H	23.44	23.86	24.38	24.82	25.99	20.73	21.15	21.67	22.12	23.28
	8H	23.67	24.04	24.62	24.99	26.18	20.84	21.21	21.79	22.16	23.35
	12H	23.79	24.11	24.74	25.06	26.29	20.89	21.21	21.84	22.16	23.39
12H	4H	22.74	23.20	23.68	24.14	25.31	20.46	20.91	21.39	21.86	23.03
	6H	23.42	23.79	24.37	24.74	25.93	20.76	21.13	21.71	22.09	23.27
	8H	23.65	23.98	24.61	24.93	26.16	20.89	21.21	21.84	22.16	23.39

END OF REPORT