

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: P855013

Luminaire Tested: SQ2-FB-100U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855013
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-100U-100D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

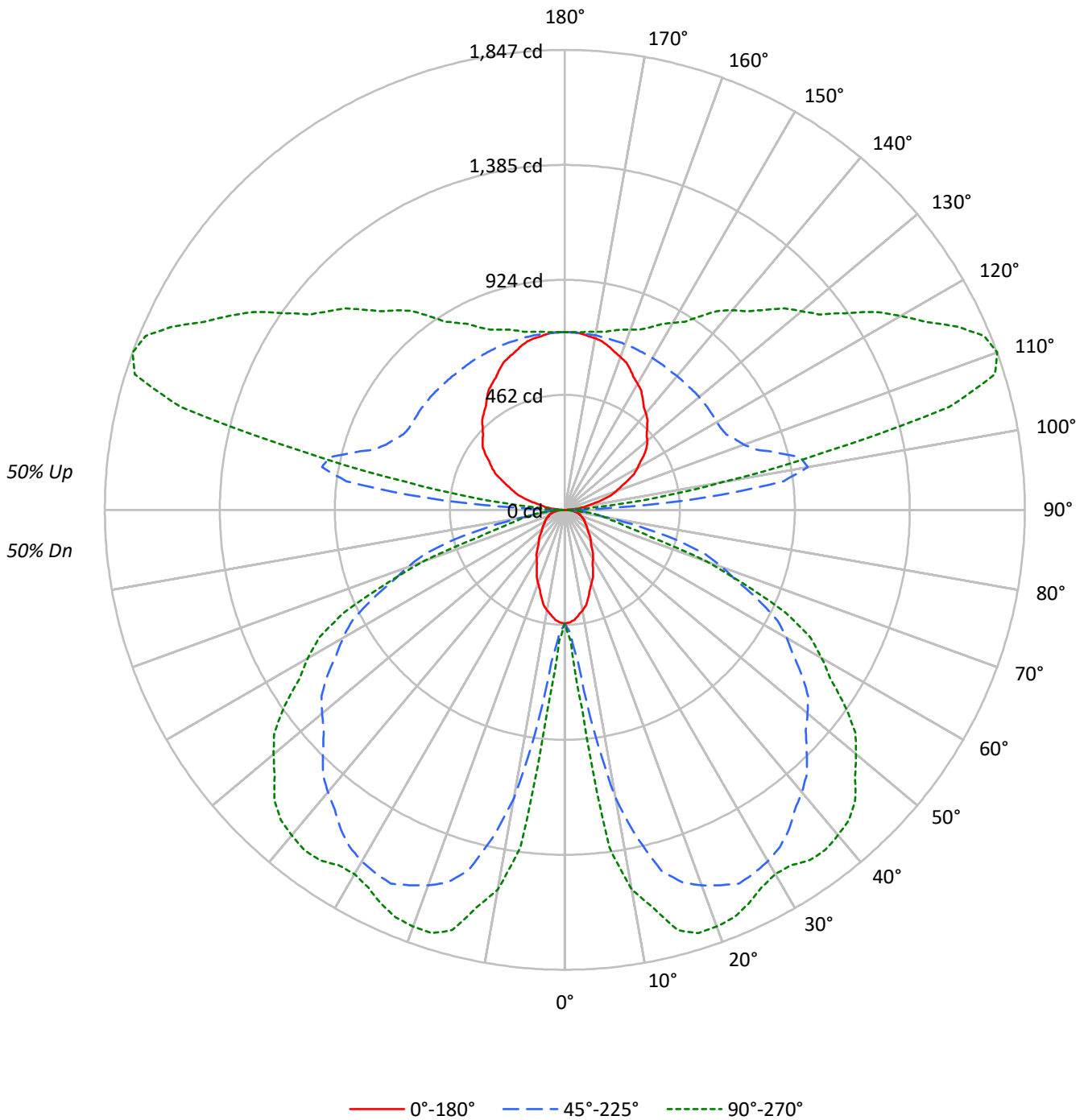
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8949.2 lumens
Efficiency: N/A
Efficacy: 127.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.2
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50
1	98	93	89	86	90	86	83	80	73	71	68	61	59	57	50	48	47	42
2	89	81	75	69	81	75	69	65	64	59	56	53	50	47	43	41	39	35
3	81	71	63	57	74	66	59	54	56	51	46	46	43	40	38	35	33	29
4	73	62	54	48	67	58	50	45	49	43	39	41	37	33	33	30	28	24
5	67	55	47	41	62	51	44	38	43	38	33	36	32	28	30	26	24	21
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	23	21	18
7	57	44	36	30	52	41	34	28	35	29	25	29	25	21	24	21	18	15
8	53	40	32	26	48	37	30	25	32	26	22	27	22	19	22	19	16	14
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	19	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7364	7364	7364
5°	7180	9953	13044
10°	6724	19271	25383
15°	6086	25073	29214
20°	5388	27582	30594
25°	4766	29496	31098
30°	4212	30378	31482
35°	3759	30906	33845
40°	3419	31198	35959
45°	3156	31346	37657
50°	2974	31948	38338
55°	2902	32777	38644
60°	2974	33212	38453
65°	3102	32760	37364
70°	3210	31676	28263
75°	3556	28453	15596
80°	3673	14672	14477
85°	3668	10152	6095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 38993 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.4	0.9
10°-20°	348.8	3.9
20°-30°	613.7	6.9
30°-40°	794.4	8.9
40°-50°	876.2	9.8
50°-60°	818.1	9.1
60°-70°	632.3	7.1
70°-80°	291.6	3.3
80°-90°	57.0	0.6
90°-100°	298.0	3.3
100°-110°	901.3	10.1
110°-120°	879.8	9.8
120°-130°	718.9	8.0
130°-140°	586.9	6.6
140°-150°	456.8	5.1
150°-160°	329.3	3.7
160°-170°	201.6	2.3
170°-180°	68.1	0.8
0°-30°	1039.0	11.6
0°-40°	1833.4	20.5
0°-60°	3527.7	39.4
0°-90°	4508.5	50.4
90°-120°	2079.1	23.2
90°-150°	3841.7	42.9
90°-180°	4441.0	49.6
0°-180°	8949.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	443	507	614	749	805	41
15°	364	718	1500	1679	1748	101
25°	268	964	1656	1728	1746	123
35°	191	930	1568	1623	1717	120
45°	138	713	1373	1576	1649	107
55°	103	425	1164	1338	1373	93
65°	81	240	858	961	978	80
75°	57	147	456	246	250	59
85°	20	43	55	37	33	21
90°	0	2	14	8	7	3
95°	37	117	562	208	131	44
105°	157	220	885	1681	1597	165
115°	279	332	716	1481	1740	276
125°	390	432	706	1170	1377	346
135°	467	516	701	1009	1135	362
145°	546	586	701	868	949	342
155°	622	642	706	778	808	286
165°	680	688	709	736	745	192
175°	711	711	712	718	716	67
180°	714	714	714	714	714	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	456.1	456.1	456.1	456.1	456.1
2.5°	452.6	471.5	493.0	517.7	528.0
5°	443.0	507.3	614.1	749.1	804.8
7.5°	425.9	556.6	893.0	1254.2	1365.8
10°	410.1	592.3	1175.4	1488.2	1548.2
12.5°	392.6	639.9	1352.6	1572.4	1634.2
15°	364.1	717.8	1500.0	1679.1	1747.7
17.5°	334.7	805.5	1568.4	1745.1	1782.5
20°	313.6	866.8	1605.3	1757.1	1780.6
22.5°	294.3	912.7	1631.5	1746.6	1771.9
25°	267.5	964.4	1655.7	1728.4	1745.6
27.5°	241.6	978.0	1645.2	1692.9	1709.6
30°	225.9	974.2	1629.4	1665.0	1688.6
32.5°	211.9	963.6	1606.5	1641.0	1692.1
35°	190.7	930.5	1568.0	1622.7	1717.1
37.5°	172.8	877.4	1517.1	1629.3	1720.2
40°	162.2	837.7	1480.2	1628.9	1706.1
42.5°	151.7	791.1	1438.2	1611.4	1688.6
45°	138.2	712.8	1372.8	1576.2	1649.2
47.5°	125.4	624.6	1312.2	1527.5	1580.6
50°	118.4	564.4	1271.9	1483.4	1526.3
52.5°	111.4	506.0	1231.6	1430.7	1470.2
55°	103.1	424.7	1164.4	1338.5	1372.8
57.5°	95.7	355.0	1088.1	1236.6	1264.5
60°	92.1	317.3	1028.5	1162.9	1190.8
62.5°	86.8	282.8	961.8	1085.6	1111.9
65°	81.2	239.8	857.5	960.9	978.0
67.5°	73.3	207.9	746.5	809.8	777.7
70°	68.0	192.3	671.0	690.8	598.7
72.5°	64.4	175.1	588.6	536.4	361.8
75°	57.0	147.1	456.1	245.7	250.0
77.5°	46.5	113.9	300.0	188.7	192.5
80°	39.5	93.1	157.8	153.5	155.7
82.5°	32.4	72.4	108.8	113.1	110.1
85°	19.8	43.3	54.8	37.2	32.9
87.5°	7.0	16.1	11.4	10.3	10.1
90°	0.0	2.1	13.5	7.8	6.7
92.5°	12.6	50.7	181.9	60.4	43.4
95°	37.0	116.9	562.3	207.7	131.0
97.5°	71.5	148.8	886.2	586.5	357.1
100°	92.9	168.6	990.2	957.3	643.0
102.5°	117.1	190.1	968.7	1342.6	1070.4
105°	156.8	220.4	885.0	1680.6	1597.3
107.5°	194.5	255.1	804.2	1713.9	1810.4
110°	219.6	277.6	764.0	1671.9	1847.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	243.8	300.1	739.8	1601.2	1822.9
115°	278.9	332.5	715.8	1481.0	1739.6
117.5°	313.9	364.6	707.2	1368.5	1633.1
120°	337.2	385.3	704.5	1302.8	1557.0
122.5°	358.6	404.2	704.5	1245.1	1479.9
125°	389.8	432.5	705.6	1169.7	1376.7
127.5°	415.2	459.4	704.5	1112.7	1289.3
130°	431.2	477.2	704.5	1080.1	1240.0
132.5°	445.6	492.5	703.7	1050.3	1197.9
135°	467.1	516.4	701.2	1008.8	1134.7
137.5°	491.0	538.0	701.2	964.4	1081.1
140°	506.3	552.3	701.2	935.6	1046.2
142.5°	521.6	565.8	700.3	909.3	1005.8
145°	545.5	586.0	701.2	867.7	948.7
147.5°	569.5	603.9	702.6	833.4	895.7
150°	584.7	616.4	703.5	814.4	867.0
152.5°	599.0	627.3	704.3	798.0	841.0
155°	621.6	642.4	705.6	778.0	807.6
157.5°	641.4	658.3	707.0	763.3	783.9
160°	653.1	667.3	707.9	754.1	769.5
162.5°	664.7	675.4	708.8	746.1	758.8
165°	680.0	687.5	709.0	736.2	744.9
167.5°	692.9	696.8	710.4	728.4	732.1
170°	700.1	702.2	711.3	724.7	725.9
172.5°	704.5	705.9	711.3	721.1	721.4
175°	711.3	711.3	712.4	718.0	715.8
177.5°	714.5	713.5	712.6	715.2	713.5
180°	713.5	713.5	713.5	713.5	713.5



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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	14.04	14.93	14.98	15.90	17.16	22.77	23.66	23.72	24.63	25.89
	3H	14.77	15.57	15.73	16.55	17.83	24.40	25.20	25.36	26.17	27.46
	4H	15.07	15.83	16.04	16.81	18.10	24.58	25.34	25.55	26.32	27.61
	6H	15.29	15.99	16.27	16.97	18.28	24.67	25.36	25.65	26.35	27.66
	8H	15.35	16.01	16.34	17.02	18.32	24.67	25.34	25.66	26.34	27.64
	12H	15.38	16.01	16.37	17.01	18.34	24.64	25.28	25.64	26.27	27.60
4H	2H	18.44	19.19	19.42	20.18	21.47	23.22	23.98	24.20	24.96	26.25
	3H	19.37	20.01	20.36	21.02	22.33	25.05	25.68	26.04	26.69	28.00
	4H	19.66	20.23	20.66	21.24	22.57	25.29	25.86	26.29	26.87	28.20
	6H	19.79	20.29	20.80	21.32	22.65	25.43	25.93	26.44	26.96	28.29
	8H	19.81	20.28	20.83	21.30	22.64	25.46	25.92	26.47	26.94	28.29
	12H	19.81	20.23	20.84	21.26	22.61	25.43	25.85	26.47	26.89	28.24
8H	4H	20.84	21.30	21.85	22.32	23.66	25.41	25.87	26.42	26.89	28.24
	6H	21.07	21.46	22.11	22.52	23.86	25.61	26.00	26.65	27.06	28.40
	8H	21.15	21.48	22.19	22.53	23.89	25.68	26.01	26.72	27.06	28.42
	12H	21.17	21.47	22.22	22.51	23.92	25.67	25.97	26.72	27.01	28.41
12H	4H	20.85	21.27	21.89	22.31	23.66	25.36	25.78	26.39	26.81	28.17
	6H	21.17	21.51	22.21	22.55	23.92	25.60	25.93	26.64	26.98	28.34
	8H	21.27	21.57	22.32	22.61	24.02	25.67	25.96	26.72	27.00	28.41