

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:

Luminaire Tested: SQ4-FB-0U-050D-840-1D-UNV-STD-W-12

Issue Date: 8/1/2024

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-892-3)
Test Lab: INNOVATION CENTER
Issue Date: 8/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-0U-050D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

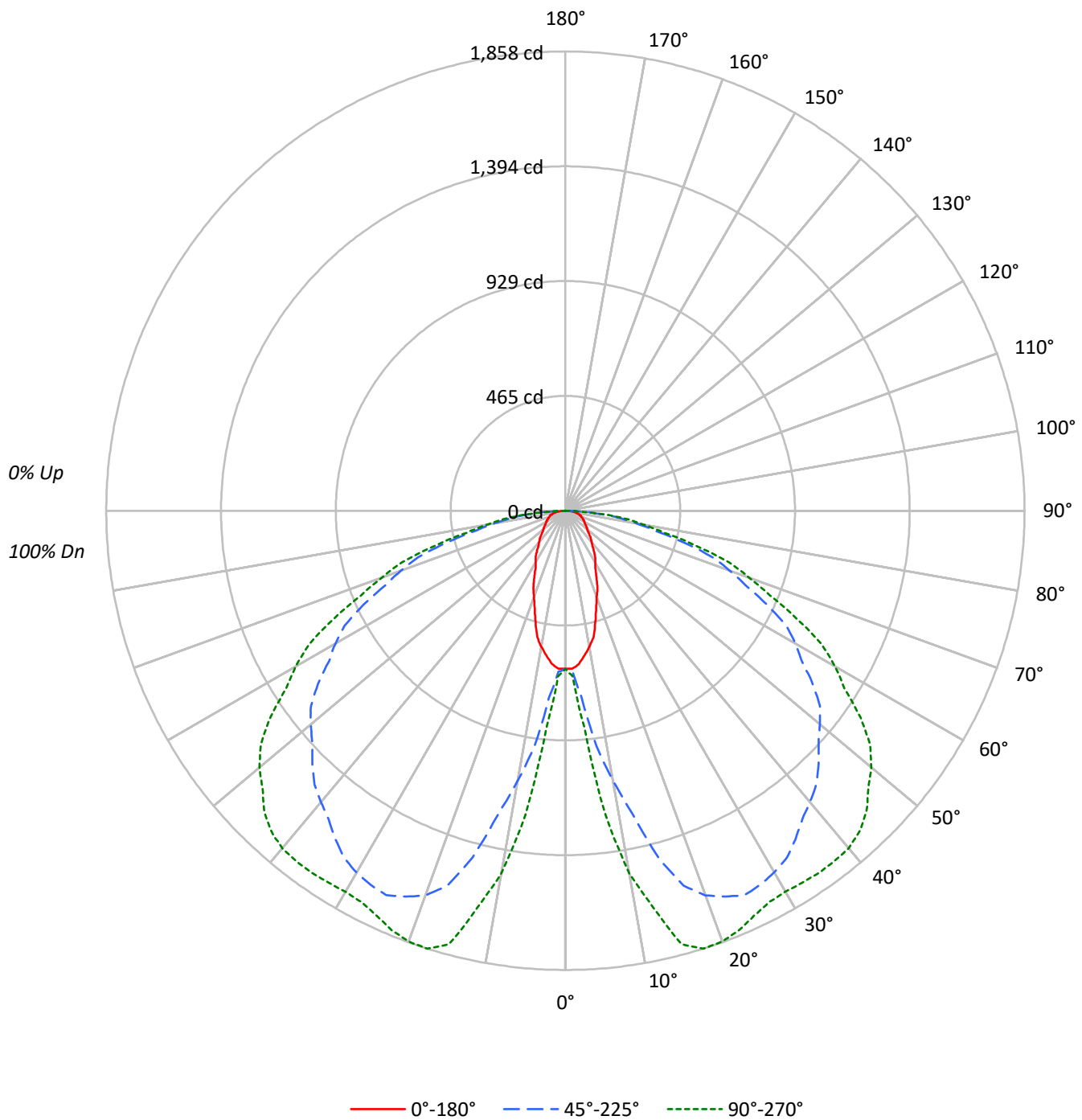
Lumens per Lamp: N/A
Luminaire Lumens: 4948.1 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Spacing Criteria (0/90/45): 0.7 / 2.7 / 2.32
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 53.4
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		89
2	97	88	81	75	95	87	80	74	83	77	72		80	75	71		77
3	88	77	68	61	86	75	67	61	72	65	59		69	63	58		67
4	80	67	58	51	78	66	57	51	63	56	50		61	54	49		59
5	73	60	50	43	71	58	50	43	56	48	42		54	47	42		52
6	67	53	44	37	65	52	43	37	50	42	36		49	42	36		47
7	62	48	39	32	60	47	38	32	45	38	32		44	37	32		43
8	58	43	34	28	56	43	34	28	41	34	28		40	33	28		39
9	54	40	31	25	52	39	31	25	38	30	25		37	30	25		36
10	50	36	28	23	49	36	28	22	35	27	22		34	27	22		33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1966	1966	1966
5°	1923	2339	2723
10°	1746	3460	4648
15°	1486	4624	5780
20°	1211	5420	6069
25°	1012	5822	6132
30°	854	6001	6322
35°	757	6090	6715
40°	660	6178	7156
45°	599	6299	7493
50°	551	6433	7731
55°	529	6553	7815
60°	544	6614	7751
65°	568	6560	7525
70°	610	6360	7117
75°	684	5899	6522
80°	765	5098	5680
85°	727	4243	4859

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 52.5°

Luminance: 7848 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	1.7
10°-20°	365.3	7.4
20°-30°	640.1	12.9
30°-40°	824.2	16.7
40°-50°	920.2	18.6
50°-60°	882.4	17.8
60°-70°	702.3	14.2
70°-80°	413.7	8.4
80°-90°	116.0	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1089.2	22.0
0°-40°	1913.4	38.7
0°-60°	3716.1	75.1
0°-90°	4948.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4948.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	639	639	639	639	639	
5°	623	668	758	855	882	57
15°	467	857	1452	1756	1815	130
25°	298	972	1716	1804	1807	137
35°	202	912	1622	1721	1789	126
45°	138	716	1448	1646	1723	107
55°	99	478	1222	1413	1458	90
65°	78	312	902	1018	1034	77
75°	58	197	496	541	549	60
85°	21	53	120	135	138	23
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
0°	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4
2.5°	639.4	639.4	642.7	647.6	649.2	655.8	665.7	670.6	673.9	670.6
5°	622.9	631.1	657.9	696.9	736.0	779.2	834.7	861.4	877.9	882.0
7.5°	590.4	613.1	689.1	791.1	904.6	1017.2	1114.7	1193.6	1239.7	1241.7
10°	559.2	598.3	715.4	871.7	1027.9	1188.3	1321.9	1404.2	1469.9	1488.4
12.5°	524.7	583.5	743.4	952.3	1166.1	1346.2	1494.6	1585.1	1637.7	1644.7
15°	466.7	553.0	783.3	1079.3	1344.5	1560.4	1702.3	1774.2	1807.1	1815.3
17.5°	412.8	525.9	818.2	1178.8	1493.0	1687.4	1795.2	1840.4	1856.9	1857.7
20°	370.1	499.6	834.7	1247.9	1568.6	1743.4	1821.5	1850.3	1858.5	1854.4
22.5°	338.8	471.6	844.5	1294.0	1614.7	1764.8	1823.1	1837.1	1840.4	1836.3
25°	298.1	425.6	845.0	1354.8	1661.1	1770.1	1800.9	1805.0	1809.2	1807.1
27.5°	261.9	374.2	832.6	1395.1	1667.7	1745.0	1759.4	1769.7	1782.4	1785.3
30°	240.5	341.3	816.2	1408.3	1661.1	1718.7	1733.1	1751.6	1774.2	1780.4
32.5°	224.1	310.0	791.5	1409.9	1644.7	1687.4	1706.8	1741.7	1774.2	1783.7
35°	201.5	263.2	750.4	1398.0	1607.7	1636.5	1677.6	1735.1	1778.3	1788.6
37.5°	179.3	229.4	694.5	1373.7	1559.2	1589.2	1657.0	1726.5	1774.6	1787.4
40°	164.5	209.7	651.7	1350.7	1521.3	1556.3	1640.6	1716.6	1768.0	1782.4
42.5°	153.0	193.3	605.7	1321.1	1478.6	1526.7	1620.8	1701.8	1749.9	1761.0
45°	137.7	168.6	532.5	1266.4	1412.4	1484.3	1587.1	1665.2	1710.5	1722.8
47.5°	123.4	151.3	456.0	1203.9	1344.9	1432.9	1538.2	1612.2	1653.7	1662.0
50°	115.1	139.8	405.0	1159.5	1297.2	1391.8	1498.7	1572.7	1607.7	1615.9
52.5°	108.5	129.9	357.3	1108.5	1247.9	1349.1	1451.0	1518.5	1550.1	1553.4
55°	98.7	117.2	294.0	1030.0	1169.8	1274.6	1373.3	1426.8	1449.4	1457.6
57.5°	93.3	107.7	244.2	944.9	1081.8	1187.1	1276.7	1318.2	1336.3	1339.2
60°	88.4	102.8	217.9	884.0	1025.9	1124.6	1202.7	1237.6	1254.1	1260.2
62.5°	83.5	99.5	198.2	821.5	960.1	1055.5	1123.7	1153.7	1166.9	1168.1
65°	78.1	94.6	174.7	725.7	857.3	945.7	999.1	1023.8	1030.0	1034.1
67.5°	72.8	89.6	157.9	629.1	751.2	824.4	863.9	885.3	886.5	895.1
70°	67.8	86.3	148.0	563.3	672.3	742.2	775.1	791.5	789.5	791.5
72.5°	64.6	81.4	141.4	495.9	596.6	651.7	681.3	692.8	694.1	694.5
75°	57.6	72.0	131.6	392.7	472.8	520.1	542.7	540.7	546.9	548.9
77.5°	49.8	62.1	108.1	289.5	354.4	385.7	403.8	409.5	407.5	407.9
80°	43.2	55.5	88.4	222.0	275.5	300.2	316.6	320.7	318.7	320.7
82.5°	34.9	45.6	68.7	164.5	206.4	226.1	237.7	238.5	239.7	243.4
85°	20.6	26.7	41.1	90.5	115.1	125.4	133.6	135.7	137.7	137.7
87.5°	8.2	11.5	21.4	37.8	47.7	51.0	51.0	47.7	51.0	46.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)