

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P572169

Luminaire Tested: 24ID-50-L840-DBD

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572169
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2109-397-8)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 24ID-50-L840-DBD
Description: 5000 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN DROPPED DOUBLE BARRELL LENS AND 4000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

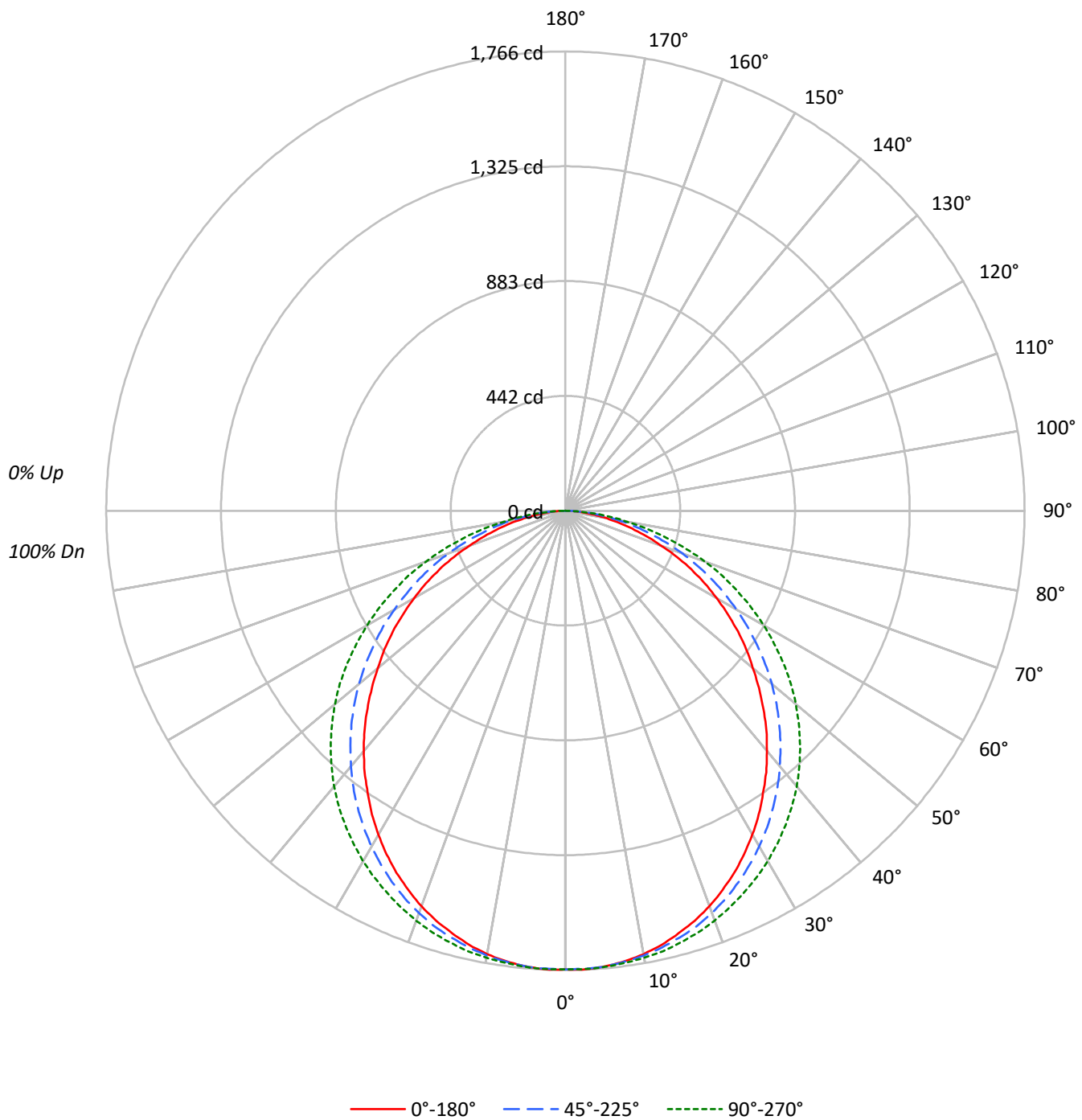
Lumens per Lamp: N/A
Luminaire Lumens: 5033.0 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 44.1
Input Voltage (V):
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		0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111			106	106	106		102
1	109	104	100	96	106	102	98	94	97	94	91			93	91	88		90
2	99	90	84	78	96	89	82	77	85	80	75			82	77	73		79
3	90	79	71	65	87	78	70	64	75	68	63			72	66	62		69
4	82	70	61	55	80	69	61	54	66	59	54			64	58	53		62
5	76	63	54	47	74	62	53	47	59	52	46			58	51	46		56
6	70	56	47	41	68	56	47	41	54	46	40			52	45	40		50
7	65	51	42	36	63	50	42	36	49	41	36			47	41	36		46
8	60	47	38	32	59	46	38	32	45	37	32			43	37	32		42
9	56	43	35	29	55	42	34	29	41	34	29			40	33	29		39
10	53	40	32	26	52	39	31	26	38	31	26			37	31	26		36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2374	2374	2374
5°	2367	2358	2361
10°	2348	2336	2351
15°	2317	2311	2341
20°	2283	2284	2331
25°	2238	2247	2318
30°	2182	2204	2307
35°	2116	2154	2291
40°	2047	2098	2273
45°	1967	2034	2242
50°	1877	1962	2203
55°	1794	1871	2147
60°	1684	1772	2070
65°	1559	1656	1967
70°	1380	1507	1818
75°	1193	1299	1596
80°	944	1056	1249
85°	650	653	750

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 2242 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.2	3.3
10°-20°	479.9	9.5
20°-30°	727.4	14.5
30°-40°	875.0	17.4
40°-50°	903.3	17.9
50°-60°	811.7	16.1
60°-70°	618.0	12.3
70°-80°	354.8	7.1
80°-90°	95.7	1.9
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°	1374.5	27.3
0°-40°	2249.5	44.7
0°-60°	3964.4	78.8
0°-90°	5033.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5033.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1764	1764	1764	1764	1764	
5°	1759	1761	1759	1758	1761	167
15°	1682	1690	1699	1710	1718	475
25°	1537	1551	1576	1609	1622	707
35°	1326	1348	1393	1453	1476	830
45°	1077	1101	1164	1244	1276	830
55°	810	831	898	985	1024	723
65°	534	558	619	691	728	528
75°	265	290	332	380	403	281
85°	62	72	85	90	95	73
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1764.1	1764.1	1764.1	1764.1	1764.1
2.5°	1765.8	1765.8	1762.5	1760.9	1764.1
5°	1759.2	1760.9	1759.2	1757.6	1760.9
7.5°	1747.8	1749.4	1749.4	1751.1	1754.3
10°	1731.4	1734.7	1736.3	1741.2	1746.1
12.5°	1710.1	1713.4	1720.0	1728.1	1734.7
15°	1682.3	1690.5	1698.7	1710.1	1718.3
17.5°	1652.9	1662.7	1675.8	1690.5	1700.3
20°	1618.5	1629.9	1646.3	1666.0	1677.4
22.5°	1579.2	1593.9	1613.6	1638.1	1651.2
25°	1536.7	1551.4	1575.9	1608.7	1621.8
27.5°	1489.2	1505.6	1535.0	1572.7	1590.7
30°	1438.5	1456.5	1490.8	1536.7	1556.3
32.5°	1384.5	1404.1	1443.4	1495.8	1517.0
35°	1325.6	1348.5	1392.7	1453.2	1476.1
37.5°	1268.3	1291.2	1340.3	1405.7	1431.9
40°	1206.1	1230.6	1283.0	1355.0	1384.5
42.5°	1143.9	1165.2	1224.1	1301.0	1332.1
45°	1076.8	1101.4	1163.5	1243.7	1276.5
47.5°	1009.7	1035.9	1101.4	1183.2	1217.6
50°	941.0	968.8	1035.9	1119.4	1157.0
52.5°	877.2	900.1	968.8	1053.9	1093.2
55°	810.1	831.3	898.4	985.2	1024.4
57.5°	739.7	764.2	831.3	913.2	952.4
60°	671.0	695.5	759.3	841.2	880.4
62.5°	603.9	626.8	689.0	767.5	806.8
65°	533.5	558.0	618.6	690.6	728.2
67.5°	464.8	490.9	548.2	613.7	653.0
70°	391.1	420.6	476.2	536.8	567.9
72.5°	325.7	353.5	404.2	458.2	487.7
75°	265.1	289.7	332.2	379.7	402.6
77.5°	204.6	230.7	268.4	304.4	322.4
80°	150.6	175.1	204.6	229.1	237.3
82.5°	103.1	121.1	142.4	155.5	166.9
85°	62.2	72.0	85.1	90.0	94.9
87.5°	26.2	29.5	34.4	32.7	34.4
90°	0.0	0.0	0.0	0.0	0.0

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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	13.61	15.25	13.97	15.57	15.88	15.08	16.72	15.44	17.03	17.35
	3H	15.18	16.66	15.55	16.99	17.35	16.98	18.46	17.35	18.79	19.15
	4H	15.69	17.09	16.09	17.44	17.82	17.68	19.08	18.08	19.43	19.80
	6H	16.02	17.32	16.43	17.69	18.08	18.17	19.47	18.58	19.83	20.23
	8H	16.11	17.35	16.53	17.74	18.13	18.31	19.56	18.74	19.94	20.34
	12H	16.15	17.34	16.58	17.72	18.15	18.39	19.58	18.82	19.96	20.39
4H	2H	14.36	15.76	14.76	16.11	16.48	15.53	16.93	15.93	17.28	17.65
	3H	16.13	17.30	16.54	17.70	18.10	17.65	18.82	18.05	19.22	19.62
	4H	16.75	17.82	17.18	18.23	18.66	18.48	19.54	18.91	19.96	20.39
	6H	17.19	18.12	17.64	18.56	19.01	19.10	20.03	19.56	20.47	20.93
	8H	17.30	18.17	17.76	18.61	19.08	19.29	20.16	19.75	20.60	21.07
	12H	17.37	18.15	17.85	18.63	19.10	19.41	20.19	19.89	20.67	21.13
8H	4H	17.13	18.01	17.59	18.45	18.91	18.67	19.54	19.13	19.99	20.45
	6H	17.67	18.40	18.17	18.89	19.36	19.40	20.12	19.89	20.61	21.09
	8H	17.84	18.49	18.35	19.00	19.48	19.64	20.29	20.15	20.80	21.29
	12H	17.95	18.53	18.46	19.02	19.58	19.82	20.39	20.32	20.88	21.44
12H	4H	17.18	17.97	17.66	18.44	18.91	18.68	19.47	19.16	19.94	20.41
	6H	17.75	18.40	18.25	18.90	19.39	19.41	20.07	19.92	20.57	21.06
	8H	17.96	18.54	18.47	19.03	19.59	19.71	20.28	20.21	20.77	21.33