

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: P571982

Luminaire Tested: 22ID-50-L840-DBD

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P571982
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2109-397-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 221D-50-L840-DBD
Description: 5000 LUMEN, 2X2 INDEPTH TROFFER WITH 2IN DROPPED DOUBLE BARRELL LENS AND 4000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

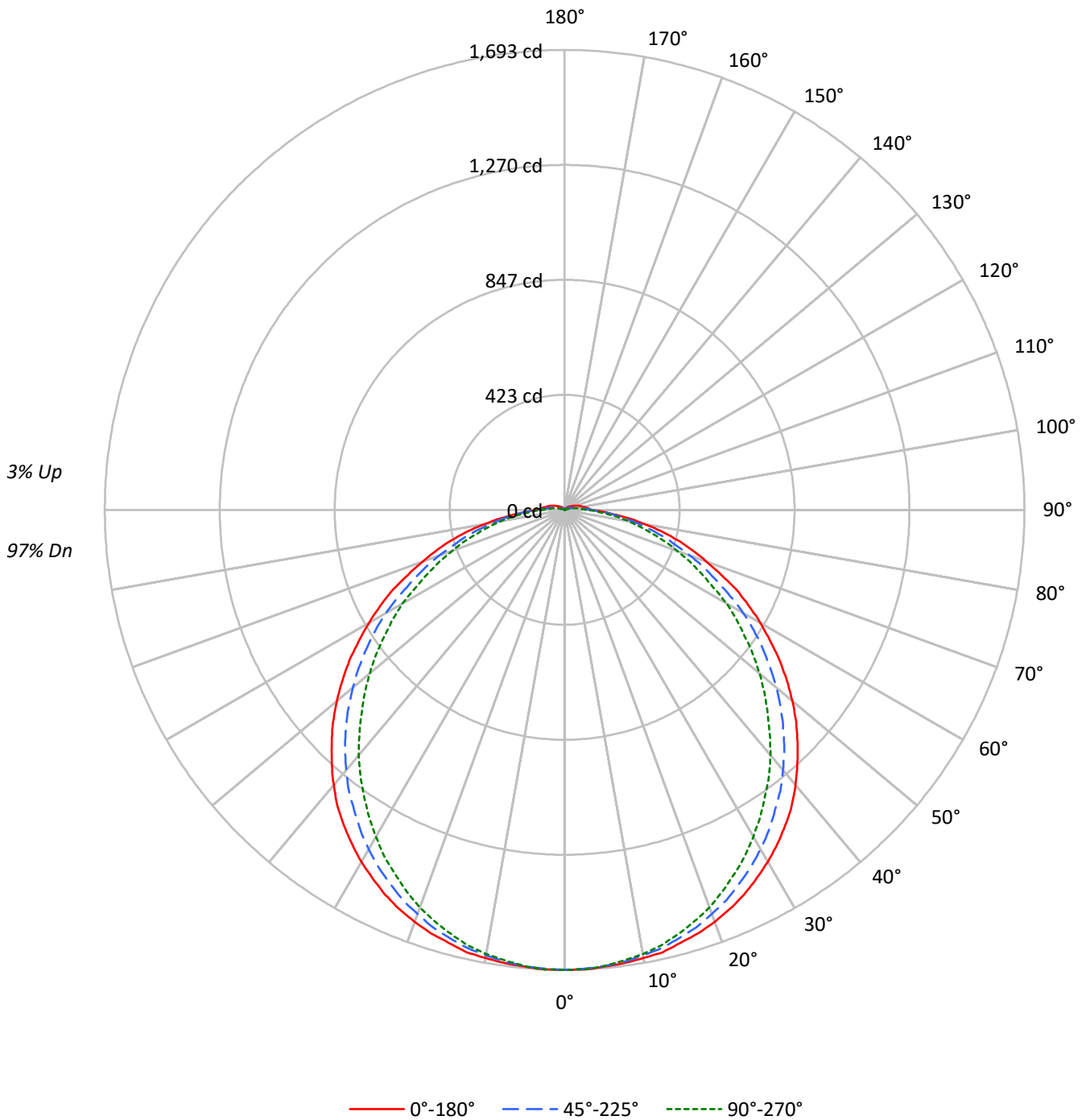
Lumens per Lamp: N/A
Luminaire Lumens: 5176.0 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.22 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.17')
CIE Type: Direct

Input Watts (W): 41.1
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



TEST NUMBER: P571982
CATALOG NUMBER: 22ID-50-L840-DBD

Luminous Intensity Polar Plot





TEST NUMBER: P571982

CATALOG NUMBER: 22ID-50-L840-DBD

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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97				
1	107	102	98	93	104	100	95	92	95	91	88	90	88	85	86	84	82	80				
2	97	89	81	75	94	87	80	74	82	77	72	79	74	70	75	72	68	66				
3	89	78	69	62	86	76	68	62	72	66	60	69	64	59	66	62	58	55				
4	81	69	60	53	78	67	59	52	64	57	51	62	55	50	59	54	49	47				
5	74	61	52	45	72	60	51	45	58	50	44	55	49	43	53	47	43	41				
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	48	42	38	35				
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	33	31				
8	59	46	37	31	57	45	37	31	43	36	30	42	35	30	40	34	30	28				
9	55	42	33	28	54	41	33	28	40	32	27	38	32	27	37	31	27	25				
10	52	39	31	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4557	4557	4557
5°	4527	4507	4521
10°	4512	4457	4471
15°	4496	4407	4405
20°	4486	4348	4330
25°	4467	4276	4226
30°	4436	4197	4118
35°	4399	4099	3994
40°	4342	3998	3872
45°	4259	3875	3711
50°	4169	3737	3565
55°	4054	3575	3389
60°	3910	3395	3236
65°	3772	3133	2999
70°	3554	2919	2817
75°	3408	2678	2617
80°	3149	2447	2476
85°	2832	2220	2346

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4259 cd/sqm



TEST NUMBER: P571982

CATALOG NUMBER: 22ID-50-L840-DBD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	3.1
10°-20°	461.1	8.9
20°-30°	700.7	13.5
30°-40°	845.9	16.3
40°-50°	877.3	16.9
50°-60°	795.3	15.4
60°-70°	617.2	11.9
70°-80°	397.4	7.7
80°-90°	187.7	3.6
90°-100°	72.8	1.4
100°-110°	32.1	0.6
110°-120°	15.8	0.3
120°-130°	7.9	0.2
130°-140°	3.4	0.1
140°-150°	0.9	0.0
150°-160°	0.0	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1322.1	25.5
0°-40°	2168.0	41.9
0°-60°	3840.5	74.2
0°-90°	5042.9	97.4
90°-120°	120.8	2.3
90°-150°	133.1	2.6
90°-180°	133.0	2.6
0°-180°	5176.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1693	1693	1693	1693	1693	
5°	1688	1688	1686	1683	1686	161
15°	1650	1645	1632	1622	1617	467
25°	1563	1550	1519	1491	1478	720
35°	1417	1397	1351	1307	1287	887
45°	1212	1192	1138	1082	1056	936
55°	967	944	890	834	808	863
65°	698	668	616	576	555	688
75°	430	402	371	345	330	452
85°	179	179	169	159	148	172
90°	100	105	100	90	82	58
95°	82	69	64	59	54	64
105°	56	44	23	15	13	59
115°	33	28	15	3	0	34
125°	20	15	8	0	0	18
135°	10	8	3	0	0	8
145°	5	3	0	0	0	3
155°	0	0	0	0	0	0
165°	0	0	0	3	3	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P571982

CATALOG NUMBER: 22ID-50-L840-DBD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1693.4	1693.4	1693.4	1693.4	1693.4
2.5°	1693.4	1690.8	1690.8	1690.8	1693.4
5°	1688.2	1688.2	1685.7	1683.1	1685.7
7.5°	1683.1	1680.6	1678.0	1675.5	1672.9
10°	1675.5	1672.9	1665.2	1660.1	1660.1
12.5°	1667.8	1660.1	1652.4	1644.8	1642.2
15°	1649.9	1644.8	1632.0	1621.7	1616.6
17.5°	1634.5	1626.9	1611.5	1596.2	1588.5
20°	1614.1	1603.8	1583.4	1565.5	1557.8
22.5°	1591.0	1578.3	1555.2	1529.7	1519.4
25°	1562.9	1550.1	1519.4	1491.3	1478.5
27.5°	1529.7	1516.9	1483.6	1447.8	1437.6
30°	1496.4	1481.1	1442.7	1404.3	1389.0
32.5°	1458.0	1440.1	1399.2	1355.7	1340.4
35°	1417.1	1396.6	1350.6	1307.1	1286.6
37.5°	1373.6	1353.2	1304.6	1256.0	1235.5
40°	1322.5	1302.0	1250.8	1197.1	1179.2
42.5°	1268.7	1248.3	1197.1	1140.8	1117.8
45°	1212.5	1192.0	1138.3	1082.0	1056.4
47.5°	1156.2	1135.7	1079.5	1023.2	997.6
50°	1094.8	1074.3	1018.1	959.2	936.2
52.5°	1030.9	1010.4	954.1	897.8	874.8
55°	966.9	943.9	890.2	833.9	808.3
57.5°	897.8	877.4	826.2	772.5	749.5
60°	831.3	808.3	759.7	708.6	688.1
62.5°	764.8	739.2	688.1	636.9	616.5
65°	698.3	667.6	616.5	575.5	555.1
67.5°	624.1	596.0	555.1	514.1	498.8
70°	555.1	532.1	491.1	457.9	440.0
72.5°	493.7	465.5	427.2	401.6	386.2
75°	429.7	401.6	370.9	345.3	330.0
77.5°	363.2	340.2	314.6	296.7	281.4
80°	299.3	281.4	263.5	245.6	235.3
82.5°	235.3	225.1	214.9	202.1	191.8
85°	179.1	179.1	168.8	158.6	148.4
87.5°	133.0	135.6	130.5	120.2	112.5
90°	99.8	104.9	99.8	89.5	81.9
92.5°	89.5	84.4	79.3	74.2	66.5
95°	81.9	69.1	63.9	58.8	53.7
97.5°	74.2	58.8	51.2	46.0	40.9
100°	66.5	51.2	38.4	33.3	30.7
102.5°	61.4	48.6	30.7	23.0	23.0
105°	56.3	43.5	23.0	15.3	12.8
107.5°	48.6	38.4	20.5	10.2	7.7
110°	43.5	35.8	17.9	5.1	2.6



TEST NUMBER: P571982

CATALOG NUMBER: 22ID-50-L840-DBD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	38.4	30.7	17.9	5.1	0.0
115°	33.3	28.1	15.3	2.6	0.0
117.5°	30.7	23.0	12.8	2.6	0.0
120°	25.6	20.5	10.2	2.6	0.0
122.5°	23.0	17.9	10.2	2.6	0.0
125°	20.5	15.3	7.7	0.0	0.0
127.5°	17.9	12.8	7.7	0.0	0.0
130°	15.3	12.8	5.1	0.0	0.0
132.5°	12.8	10.2	5.1	0.0	0.0
135°	10.2	7.7	2.6	0.0	0.0
137.5°	7.7	7.7	2.6	0.0	0.0
140°	7.7	5.1	2.6	0.0	0.0
142.5°	5.1	5.1	0.0	0.0	0.0
145°	5.1	2.6	0.0	0.0	0.0
147.5°	2.6	2.6	0.0	0.0	0.0
150°	2.6	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	2.6	2.6
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	2.6
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	2.6	2.6	2.6
180°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P571982
 CATALOG NUMBER: 22ID-50-L840-DBD

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	16.77	18.38	17.18	18.75	19.13	15.82	17.42	16.22	17.79	18.17
	3H	18.66	20.12	19.08	20.50	20.92	17.56	19.01	17.97	19.39	19.82
	4H	19.44	20.82	19.88	21.22	21.66	18.25	19.63	18.69	20.03	20.47
	6H	20.09	21.37	20.54	21.79	22.24	18.84	20.12	19.29	20.54	20.99
	8H	20.34	21.57	20.80	22.01	22.47	19.08	20.30	19.54	20.74	21.20
	12H	20.55	21.72	21.02	22.15	22.64	19.28	20.46	19.75	20.89	21.38
4H	2H	17.27	18.65	17.71	19.05	19.48	16.51	17.89	16.95	18.29	18.72
	3H	19.39	20.55	19.84	21.00	21.46	18.47	19.63	18.92	20.08	20.54
	4H	20.31	21.37	20.78	21.83	22.33	19.29	20.35	19.77	20.81	21.31
	6H	21.11	22.04	21.61	22.53	23.05	20.02	20.96	20.52	21.44	21.96
	8H	21.43	22.30	21.93	22.79	23.32	20.32	21.20	20.82	21.69	22.21
	12H	21.71	22.50	22.23	23.02	23.54	20.59	21.38	21.11	21.90	22.43
8H	4H	20.58	21.45	21.08	21.94	22.47	19.69	20.56	20.19	21.05	21.57
	6H	21.52	22.26	22.05	22.79	23.32	20.56	21.30	21.10	21.83	22.36
	8H	21.93	22.60	22.48	23.14	23.69	20.96	21.62	21.51	22.17	22.71
	12H	22.33	22.92	22.87	23.45	24.06	21.34	21.93	21.89	22.46	23.08
12H	4H	20.61	21.40	21.13	21.92	22.45	19.75	20.54	20.27	21.06	21.59
	6H	21.58	22.25	22.13	22.79	23.34	20.67	21.33	21.21	21.88	22.42
	8H	22.06	22.65	22.61	23.19	23.80	21.14	21.73	21.68	22.26	22.88