

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: P571986

Luminaire Tested: 22ID-50-L850-DBD

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P571986
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-L850-DBD
Description: 5000 LUMEN, 2X2 INDEPTH TROFFER WITH 2IN DROPPED DOUBLE BARRELL LENS AND 5000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

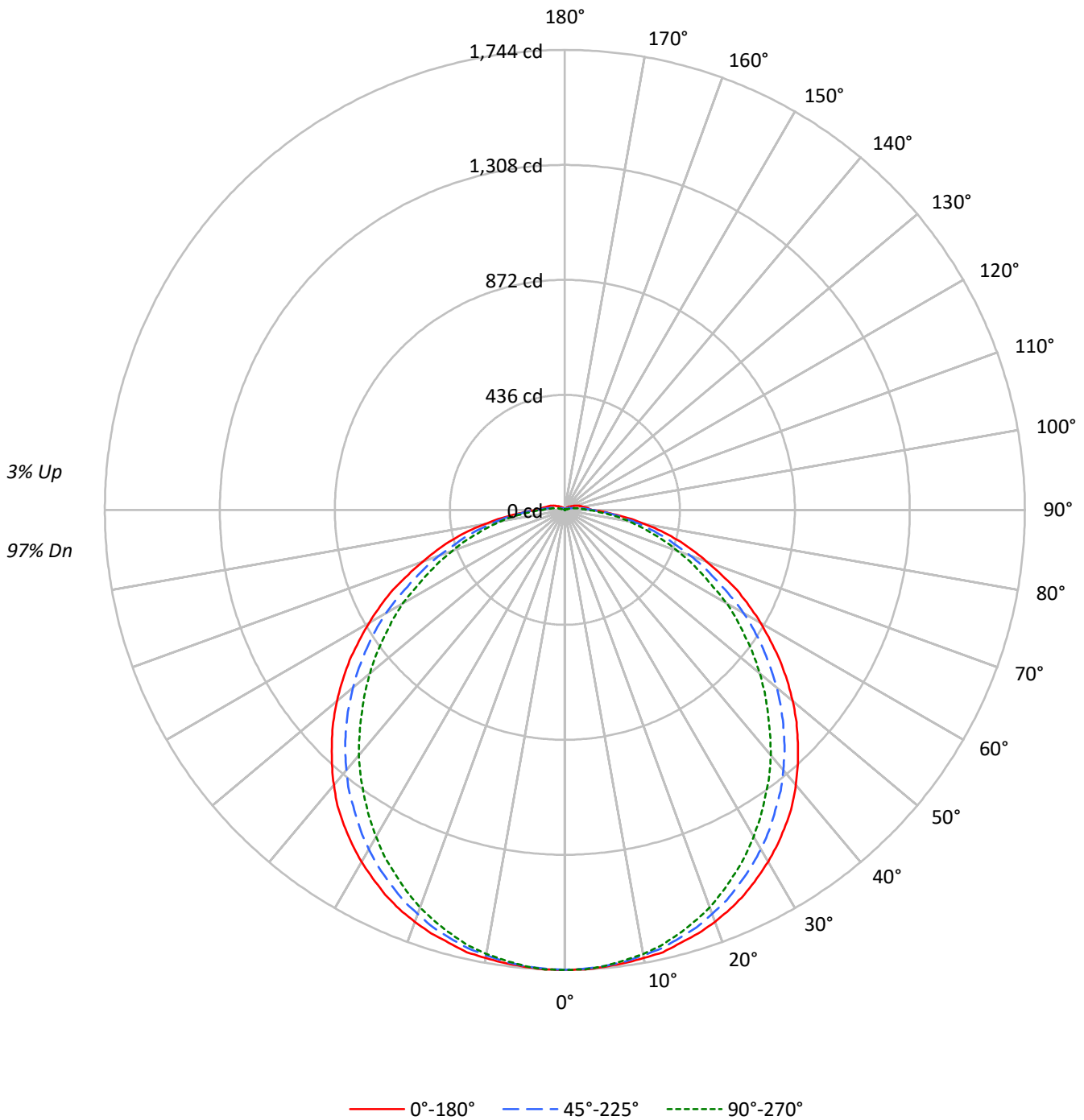
Lumens per Lamp: N/A
Luminaire Lumens: 5332.0 lumens
Efficiency: N/A
Efficacy: 129.7 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.22 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.17')
CIE Type: Direct

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: P571986
CATALOG NUMBER: 22ID-50-L850-DBD

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	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°	4694	4694	4694
5°	4664	4643	4657
10°	4648	4592	4605
15°	4631	4540	4538
20°	4621	4479	4460
25°	4602	4405	4353
30°	4570	4324	4242
35°	4531	4222	4114
40°	4473	4119	3988
45°	4388	3992	3823
50°	4295	3850	3673
55°	4176	3682	3491
60°	4028	3498	3333
65°	3886	3227	3089
70°	3661	3007	2901
75°	3511	2759	2696
80°	3244	2521	2551
85°	2917	2287	2416

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4388 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.2	3.1
10°-20°	475.0	8.9
20°-30°	721.8	13.5
30°-40°	871.4	16.3
40°-50°	903.7	16.9
50°-60°	819.2	15.4
60°-70°	635.8	11.9
70°-80°	409.4	7.7
80°-90°	193.4	3.6
90°-100°	75.0	1.4
100°-110°	33.1	0.6
110°-120°	16.2	0.3
120°-130°	8.2	0.2
130°-140°	3.5	0.1
140°-150°	1.0	0.0
150°-160°	0.0	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1361.9	25.5
0°-40°	2233.3	41.9
0°-60°	3956.3	74.2
0°-90°	5194.8	97.4
90°-120°	124.4	2.3
90°-150°	137.0	2.6
90°-180°	137.0	2.6
0°-180°	5332.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1744	1744	1744	1744	1744	
5°	1739	1739	1736	1734	1736	166
15°	1700	1694	1681	1671	1665	481
25°	1610	1597	1565	1536	1523	742
35°	1460	1439	1391	1346	1325	913
45°	1249	1228	1173	1115	1088	964
55°	996	972	917	859	833	889
65°	719	688	635	593	572	709
75°	443	414	382	356	340	466
85°	184	184	174	163	153	177
90°	103	108	103	92	84	60
95°	84	71	66	61	55	66
105°	58	45	24	16	13	60
115°	34	29	16	3	0	35
125°	21	16	8	0	0	19
135°	10	8	3	0	0	9
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: P571986

CATALOG NUMBER: 22ID-50-L850-DBD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1744.4	1744.4	1744.4	1744.4	1744.4
2.5°	1744.4	1741.8	1741.8	1741.8	1744.4
5°	1739.1	1739.1	1736.5	1733.9	1736.5
7.5°	1733.9	1731.2	1728.6	1726.0	1723.3
10°	1726.0	1723.3	1715.4	1710.1	1710.1
12.5°	1718.0	1710.1	1702.2	1694.3	1691.7
15°	1699.6	1694.3	1681.2	1670.6	1665.3
17.5°	1683.8	1675.9	1660.1	1644.3	1636.4
20°	1662.7	1652.2	1631.1	1612.6	1604.7
22.5°	1639.0	1625.8	1602.1	1575.8	1565.2
25°	1610.0	1596.8	1565.2	1536.2	1523.1
27.5°	1575.8	1562.6	1528.3	1491.4	1480.9
30°	1541.5	1525.7	1486.2	1446.6	1430.8
32.5°	1502.0	1483.5	1441.4	1396.6	1380.8
35°	1459.8	1438.7	1391.3	1346.5	1325.4
37.5°	1415.0	1393.9	1343.9	1293.8	1272.7
40°	1362.3	1341.2	1288.5	1233.2	1214.8
42.5°	1307.0	1285.9	1233.2	1175.2	1151.5
45°	1249.0	1227.9	1172.6	1114.6	1088.3
47.5°	1191.0	1170.0	1112.0	1054.0	1027.7
50°	1127.8	1106.7	1048.7	988.1	964.4
52.5°	1061.9	1040.8	982.9	924.9	901.2
55°	996.0	972.3	917.0	859.0	832.7
57.5°	924.9	903.8	851.1	795.8	772.1
60°	856.4	832.7	782.6	729.9	708.8
62.5°	787.9	761.5	708.8	656.1	635.0
65°	719.4	687.7	635.0	592.9	571.8
67.5°	642.9	614.0	571.8	529.6	513.8
70°	571.8	548.1	505.9	471.7	453.2
72.5°	508.6	479.6	440.1	413.7	397.9
75°	442.7	413.7	382.1	355.7	339.9
77.5°	374.2	350.5	324.1	305.7	289.9
80°	308.3	289.9	271.4	253.0	242.4
82.5°	242.4	231.9	221.3	208.2	197.6
85°	184.5	184.5	173.9	163.4	152.8
87.5°	137.0	139.7	134.4	123.8	115.9
90°	102.8	108.0	102.8	92.2	84.3
92.5°	92.2	87.0	81.7	76.4	68.5
95°	84.3	71.1	65.9	60.6	55.3
97.5°	76.4	60.6	52.7	47.4	42.2
100°	68.5	52.7	39.5	34.3	31.6
102.5°	63.2	50.1	31.6	23.7	23.7
105°	58.0	44.8	23.7	15.8	13.2
107.5°	50.1	39.5	21.1	10.5	7.9
110°	44.8	36.9	18.4	5.3	2.6



TEST NUMBER: P571986

CATALOG NUMBER: 22ID-50-L850-DBD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	39.5	31.6	18.4	5.3	0.0
115°	34.3	29.0	15.8	2.6	0.0
117.5°	31.6	23.7	13.2	2.6	0.0
120°	26.4	21.1	10.5	2.6	0.0
122.5°	23.7	18.4	10.5	2.6	0.0
125°	21.1	15.8	7.9	0.0	0.0
127.5°	18.4	13.2	7.9	0.0	0.0
130°	15.8	13.2	5.3	0.0	0.0
132.5°	13.2	10.5	5.3	0.0	0.0
135°	10.5	7.9	2.6	0.0	0.0
137.5°	7.9	7.9	2.6	0.0	0.0
140°	7.9	5.3	2.6	0.0	0.0
142.5°	5.3	5.3	0.0	0.0	0.0
145°	5.3	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



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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	16.87	18.48	17.28	18.85	19.23	15.92	17.53	16.33	17.90	18.27
	3H	18.76	20.22	19.18	20.60	21.02	17.66	19.12	18.08	19.50	19.92
	4H	19.55	20.92	19.98	21.32	21.76	18.36	19.73	18.79	20.13	20.57
	6H	20.20	21.48	20.65	21.89	22.35	18.94	20.22	19.40	20.64	21.09
	8H	20.44	21.67	20.91	22.11	22.57	19.18	20.41	19.65	20.85	21.31
	12H	20.65	21.82	21.12	22.26	22.75	19.39	20.56	19.86	20.99	21.48
4H	2H	17.37	18.75	17.81	19.15	19.59	16.61	17.99	17.05	18.39	18.83
	3H	19.49	20.65	19.94	21.10	21.56	18.57	19.74	19.02	20.18	20.64
	4H	20.41	21.47	20.89	21.93	22.43	19.40	20.46	19.87	20.92	21.41
	6H	21.22	22.15	21.71	22.64	23.15	20.13	21.06	20.62	21.55	22.06
	8H	21.53	22.41	22.03	22.90	23.42	20.43	21.30	20.93	21.79	22.31
	12H	21.81	22.60	22.33	23.12	23.65	20.70	21.49	21.21	22.01	22.53
8H	4H	20.68	21.56	21.18	22.05	22.57	19.79	20.67	20.29	21.15	21.68
	6H	21.63	22.36	22.16	22.89	23.42	20.67	21.40	21.20	21.93	22.47
	8H	22.04	22.70	22.58	23.25	23.79	21.06	21.73	21.61	22.27	22.82
	12H	22.43	23.02	22.98	23.55	24.17	21.44	22.03	21.99	22.57	23.18
12H	4H	20.72	21.51	21.24	22.03	22.56	19.85	20.64	20.37	21.16	21.69
	6H	21.69	22.35	22.23	22.90	23.44	20.77	21.43	21.32	21.98	22.53
	8H	22.17	22.75	22.71	23.29	23.90	21.24	21.83	21.79	22.36	22.98