

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: P572236

Luminaire Tested: 24ID-90-L850-DBR

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2109-397-7)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 24ID-90-L850-DBR
Description: 9000 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN REGRESSED DOUBLE BARRELL LENS AND 5000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

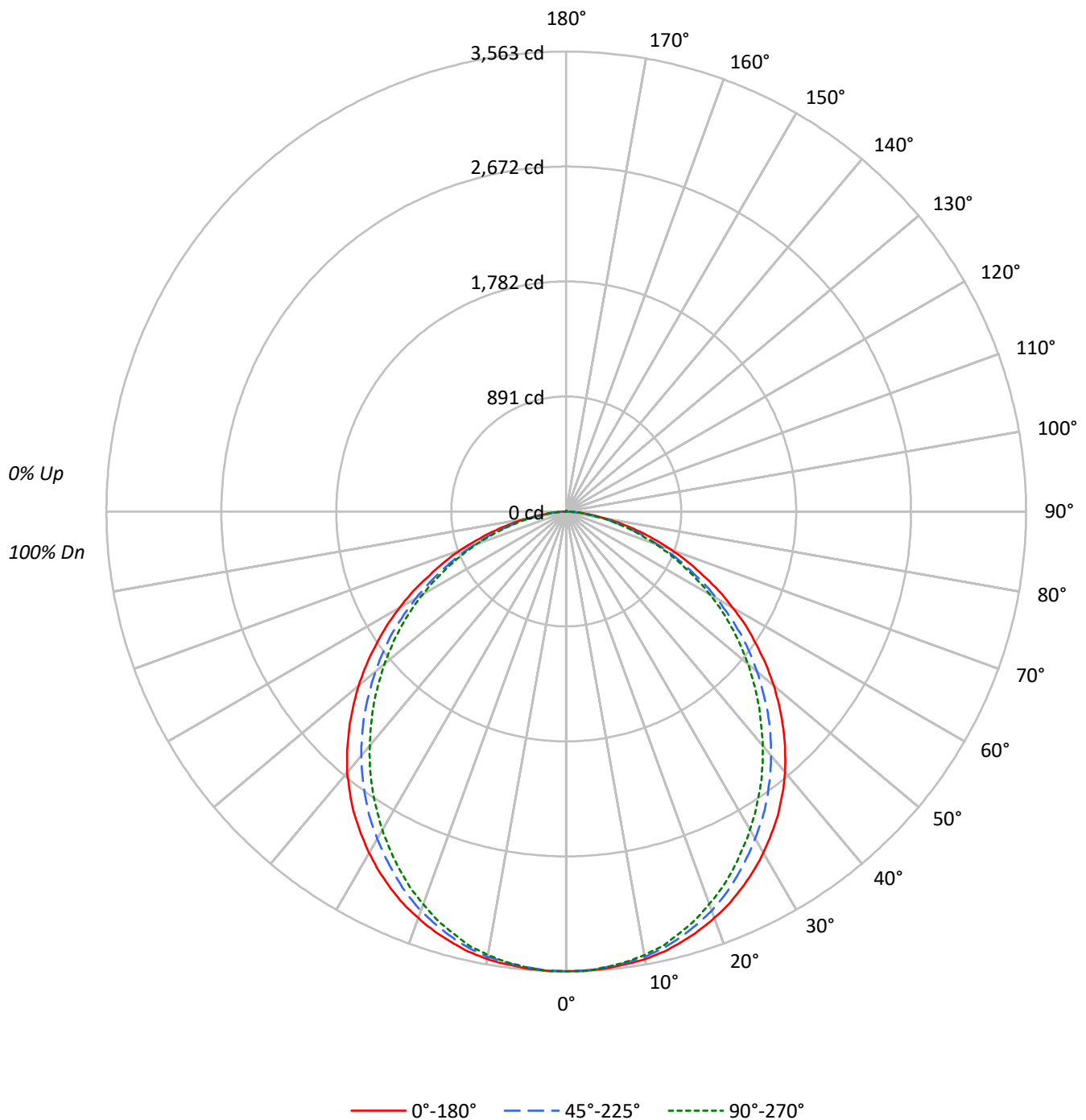
Lumens per Lamp: N/A
Luminaire Lumens: 9363.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.19 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 87.3
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	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	101	97	107	103	99	95	98	95	92	94	92	90	91	89	87
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33
9	57	44	36	31	56	44	36	31	42	35	30	41	35	30	40	34	30
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4793	4793	4793
5°	4799	4787	4787
10°	4811	4786	4767
15°	4810	4759	4714
20°	4800	4715	4636
25°	4780	4637	4542
30°	4746	4547	4427
35°	4702	4455	4304
40°	4635	4338	4161
45°	4525	4203	4012
50°	4394	4040	3848
55°	4216	3862	3669
60°	4000	3618	3458
65°	3713	3320	3188
70°	3400	2987	2897
75°	2948	2568	2496
80°	2374	2020	2020
85°	1200	1271	1200

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4525 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.0	3.6
10°-20°	963.5	10.3
20°-30°	1442.6	15.4
30°-40°	1705.0	18.2
40°-50°	1716.2	18.3
50°-60°	1485.1	15.9
60°-70°	1057.7	11.3
70°-80°	543.1	5.8
80°-90°	112.3	1.2
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°	0.4	0.0
170°-180°	0.0	0.0
0°-30°	2743.1	29.3
0°-40°	4448.2	47.5
0°-60°	7649.5	81.7
0°-90°	9362.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9363.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3563	3563	3563	3563	3563	
5°	3553	3549	3544	3540	3544	338
15°	3453	3439	3416	3389	3384	975
25°	3220	3192	3124	3073	3060	1484
35°	2863	2817	2712	2643	2620	1789
45°	2378	2328	2209	2131	2108	1833
55°	1797	1747	1646	1578	1564	1608
65°	1166	1125	1043	1006	1002	1162
75°	567	540	494	476	480	605
85°	78	78	82	82	78	117
90°	0	0	0	0	0	4
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	5	0
180°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3562.6	3562.6	3562.6	3562.6	3562.6
2.5°	3562.6	3558.0	3558.0	3553.4	3562.6
5°	3553.4	3548.9	3544.3	3539.7	3544.3
7.5°	3539.7	3530.6	3526.0	3516.9	3521.4
10°	3521.4	3512.3	3503.1	3489.4	3489.4
12.5°	3494.0	3484.8	3466.5	3448.3	3448.3
15°	3452.8	3439.1	3416.2	3388.8	3384.2
17.5°	3407.1	3388.8	3356.8	3324.8	3320.2
20°	3352.2	3333.9	3292.8	3251.6	3237.9
22.5°	3292.8	3269.9	3215.0	3169.3	3155.6
25°	3219.6	3192.1	3123.5	3073.2	3059.5
27.5°	3141.8	3105.3	3027.5	2972.6	2954.3
30°	3054.9	3018.4	2926.9	2872.0	2849.2
32.5°	2958.9	2917.8	2826.3	2757.7	2734.8
35°	2862.9	2817.1	2712.0	2643.4	2620.5
37.5°	2753.1	2702.8	2593.0	2519.9	2497.0
40°	2638.8	2588.5	2469.6	2396.4	2369.0
42.5°	2510.7	2460.4	2341.5	2263.8	2236.3
45°	2378.1	2327.8	2208.9	2131.1	2108.3
47.5°	2240.9	2181.5	2067.1	1993.9	1971.1
50°	2099.1	2039.7	1929.9	1856.8	1838.5
52.5°	1952.8	1893.3	1788.2	1715.0	1701.3
55°	1797.3	1747.0	1646.4	1577.8	1564.1
57.5°	1651.0	1596.1	1490.9	1440.6	1426.9
60°	1486.3	1440.6	1344.5	1298.8	1285.1
62.5°	1335.4	1289.7	1193.6	1143.3	1138.7
65°	1166.2	1125.0	1042.7	1006.1	1001.5
67.5°	1019.8	974.1	905.5	868.9	868.9
70°	864.3	823.2	759.2	736.3	736.3
72.5°	708.9	681.4	626.5	603.7	608.2
75°	567.1	539.6	493.9	475.6	480.2
77.5°	434.5	402.4	375.0	361.3	365.9
80°	306.4	283.5	260.7	256.1	260.7
82.5°	182.9	169.2	164.6	164.6	164.6
85°	77.7	77.7	82.3	82.3	77.7
87.5°	32.0	27.4	27.4	32.0	32.0
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	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°	4.6	0.0	4.6	4.6	4.6
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	4.6	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	4.6
177.5°	0.0	0.0	4.6	4.6	4.6
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	17.17	18.78	17.54	19.09	19.40	16.41	18.01	16.77	18.32	18.64
	3H	18.80	20.24	19.18	20.57	20.93	17.96	19.40	18.34	19.73	20.09
	4H	19.35	20.71	19.75	21.06	21.43	18.48	19.84	18.88	20.19	20.56
	6H	19.70	20.96	20.11	21.32	21.71	18.81	20.07	19.22	20.43	20.82
	8H	19.78	20.98	20.21	21.37	21.77	18.89	20.09	19.32	20.48	20.88
	12H	19.80	20.95	20.23	21.33	21.76	18.92	20.07	19.35	20.45	20.88
4H	2H	17.64	18.99	18.04	19.34	19.72	17.01	18.37	17.41	18.72	19.10
	3H	19.47	20.60	19.88	21.00	21.40	18.76	19.90	19.17	20.29	20.69
	4H	20.14	21.16	20.57	21.57	22.01	19.38	20.41	19.82	20.82	21.26
	6H	20.60	21.49	21.05	21.93	22.38	19.81	20.70	20.27	21.14	21.60
	8H	20.70	21.53	21.16	21.98	22.44	19.92	20.76	20.39	21.20	21.66
	12H	20.75	21.49	21.23	21.97	22.44	19.98	20.72	20.46	21.20	21.67
8H	4H	20.33	21.16	20.79	21.60	22.07	19.64	20.48	20.11	20.92	21.38
	6H	20.86	21.55	21.36	22.04	22.51	20.15	20.84	20.65	21.33	21.81
	8H	21.01	21.62	21.52	22.13	22.62	20.31	20.93	20.82	21.43	21.92
	12H	21.08	21.63	21.59	22.12	22.68	20.40	20.95	20.91	21.44	22.00
12H	4H	20.33	21.08	20.81	21.55	22.02	19.66	20.41	20.14	20.88	21.35
	6H	20.87	21.49	21.38	22.00	22.48	20.18	20.80	20.69	21.31	21.79
	8H	21.06	21.60	21.56	22.09	22.65	20.38	20.92	20.88	21.41	21.97

END OF REPORT