

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: P572234

Luminaire Tested: 24ID-90-L840-DBR

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P572234
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-L840-DBR
Description: 9000 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN REGRESSED DOUBLE BARRELL LENS AND 4000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

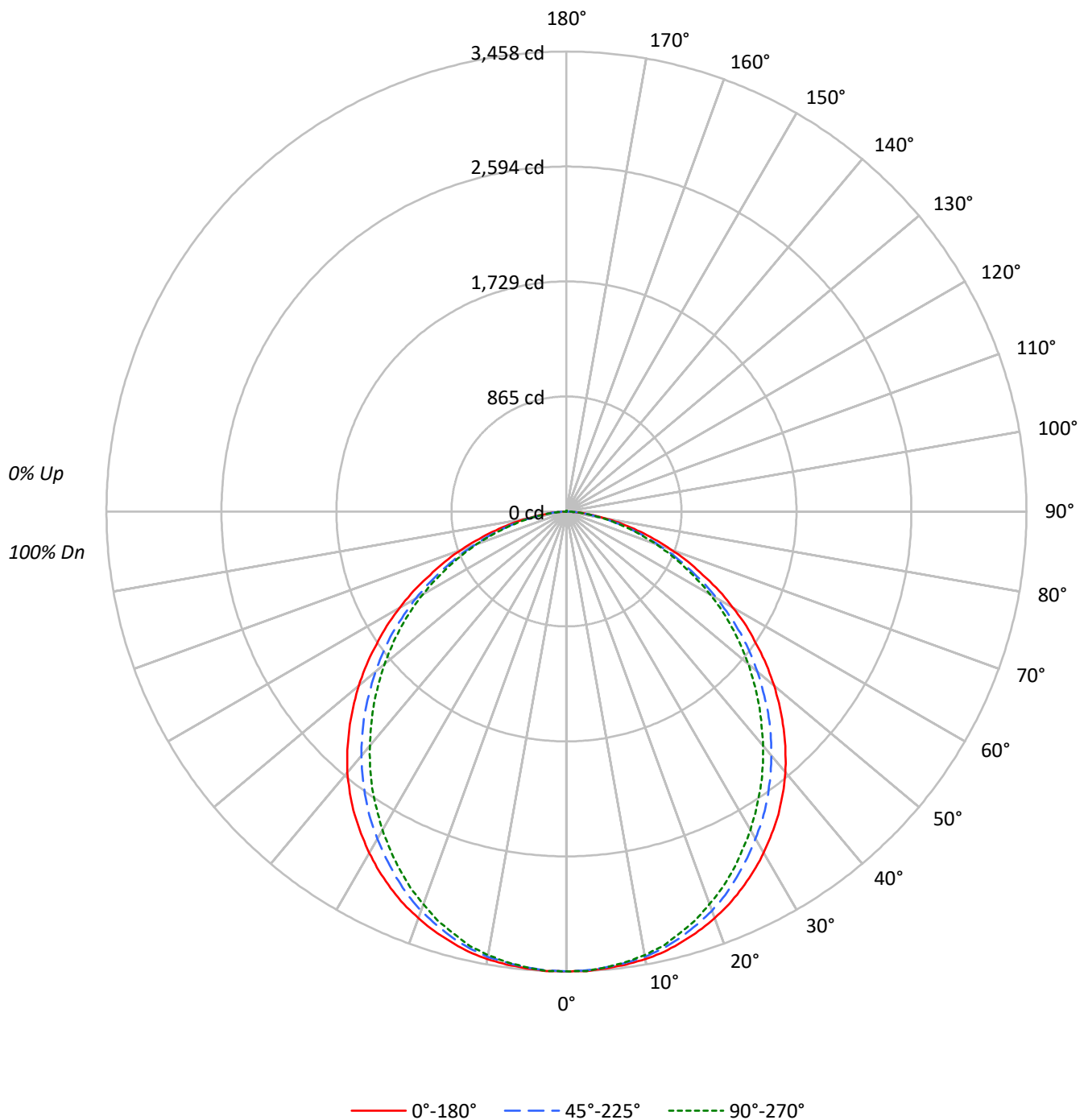
Lumens per Lamp: N/A
Luminaire Lumens: 9088.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.19 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4653	4653	4653
5°	4658	4646	4646
10°	4670	4646	4627
15°	4668	4619	4576
20°	4659	4576	4500
25°	4639	4501	4409
30°	4607	4414	4297
35°	4564	4324	4178
40°	4499	4210	4039
45°	4392	4080	3894
50°	4265	3921	3735
55°	4092	3749	3561
60°	3882	3512	3356
65°	3604	3222	3095
70°	3301	2899	2812
75°	2861	2492	2423
80°	2304	1960	1960
85°	1166	1233	1166

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 4392 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.1	3.6
10°-20°	935.2	10.3
20°-30°	1400.2	15.4
30°-40°	1654.9	18.2
40°-50°	1665.8	18.3
50°-60°	1441.5	15.9
60°-70°	1026.6	11.3
70°-80°	527.1	5.8
80°-90°	109.1	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°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	2662.6	29.3
0°-40°	4317.5	47.5
0°-60°	7424.8	81.7
0°-90°	9087.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9088.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3458	3458	3458	3458	3458	
5°	3449	3445	3440	3436	3440	328
15°	3351	3338	3316	3289	3285	946
25°	3125	3098	3032	2983	2970	1440
35°	2779	2734	2632	2566	2544	1736
45°	2308	2259	2144	2069	2046	1780
55°	1744	1696	1598	1531	1518	1561
65°	1132	1092	1012	977	972	1127
75°	550	524	479	462	466	587
85°	76	76	80	80	76	113
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	4	0
180°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3457.9	3457.9	3457.9	3457.9	3457.9
2.5°	3457.9	3453.5	3453.5	3449.1	3457.9
5°	3449.1	3444.6	3440.2	3435.8	3440.2
7.5°	3435.8	3426.9	3422.4	3413.6	3418.0
10°	3418.0	3409.1	3400.2	3386.9	3386.9
12.5°	3391.4	3382.5	3364.7	3347.0	3347.0
15°	3351.4	3338.1	3315.9	3289.3	3284.8
17.5°	3307.0	3289.3	3258.2	3227.1	3222.7
20°	3253.8	3236.0	3196.0	3156.1	3142.8
22.5°	3196.0	3173.9	3120.6	3076.2	3062.9
25°	3125.0	3098.4	3031.8	2983.0	2969.7
27.5°	3049.6	3014.1	2938.6	2885.3	2867.6
30°	2965.2	2929.7	2840.9	2787.7	2765.5
32.5°	2872.0	2832.1	2743.3	2676.7	2654.5
35°	2778.8	2734.4	2632.3	2565.7	2543.5
37.5°	2672.3	2623.4	2516.9	2445.9	2423.7
40°	2561.3	2512.4	2397.0	2326.0	2299.4
42.5°	2437.0	2388.2	2272.7	2197.3	2170.6
45°	2308.3	2259.4	2144.0	2068.6	2046.4
47.5°	2175.1	2117.4	2006.4	1935.4	1913.2
50°	2037.5	1979.8	1873.2	1802.2	1784.5
52.5°	1895.4	1837.7	1735.6	1664.6	1651.3
55°	1744.5	1695.7	1598.0	1531.4	1518.1
57.5°	1602.5	1549.2	1447.1	1398.3	1385.0
60°	1442.7	1398.3	1305.1	1260.7	1247.3
62.5°	1296.2	1251.8	1158.6	1109.7	1105.3
65°	1131.9	1092.0	1012.1	976.6	972.1
67.5°	989.9	945.5	878.9	843.4	843.4
70°	839.0	799.0	736.9	714.7	714.7
72.5°	688.0	661.4	608.1	585.9	590.4
75°	550.4	523.8	479.4	461.7	466.1
77.5°	421.7	390.6	364.0	350.7	355.1
80°	297.4	275.2	253.0	248.6	253.0
82.5°	177.6	164.2	159.8	159.8	159.8
85°	75.5	75.5	79.9	79.9	75.5
87.5°	31.1	26.6	26.6	31.1	31.1
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°	4.4	0.0	4.4	4.4	4.4
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	4.4	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	4.4
177.5°	0.0	0.0	4.4	4.4	4.4
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	17.07	18.67	17.44	18.99	19.30	16.30	17.91	16.67	18.22	18.53
	3H	18.69	20.14	19.07	20.47	20.83	17.86	19.30	18.23	19.63	19.99
	4H	19.25	20.60	19.64	20.95	21.33	18.38	19.73	18.78	20.08	20.46
	6H	19.60	20.85	20.01	21.22	21.61	18.71	19.96	19.12	20.33	20.72
	8H	19.68	20.87	20.10	21.26	21.66	18.79	19.99	19.21	20.38	20.78
	12H	19.70	20.85	20.13	21.23	21.66	18.82	19.97	19.25	20.35	20.78
4H	2H	17.53	18.89	17.93	19.24	19.62	16.91	18.27	17.31	18.62	18.99
	3H	19.37	20.50	19.78	20.90	21.30	18.66	19.79	19.07	20.19	20.59
	4H	20.03	21.06	20.47	21.47	21.91	19.28	20.30	19.71	20.72	21.15
	6H	20.49	21.38	20.95	21.82	22.28	19.71	20.60	20.17	21.04	21.50
	8H	20.60	21.43	21.06	21.87	22.34	19.82	20.65	20.28	21.09	21.56
	12H	20.64	21.39	21.12	21.86	22.33	19.87	20.62	20.36	21.10	21.57
8H	4H	20.22	21.05	20.68	21.50	21.96	19.54	20.37	20.00	20.81	21.28
	6H	20.76	21.45	21.25	21.93	22.41	20.05	20.74	20.55	21.23	21.70
	8H	20.90	21.52	21.42	22.03	22.52	20.21	20.82	20.72	21.33	21.82
	12H	20.98	21.52	21.49	22.02	22.58	20.30	20.84	20.81	21.33	21.90
12H	4H	20.23	20.97	20.71	21.45	21.92	19.56	20.30	20.04	20.78	21.25
	6H	20.77	21.38	21.28	21.89	22.38	20.08	20.69	20.59	21.20	21.69
	8H	20.95	21.50	21.46	21.99	22.55	20.27	20.82	20.78	21.31	21.87

END OF REPORT