

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P475396

Luminaire Tested: **14CZ2-25-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475396
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-25-S-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

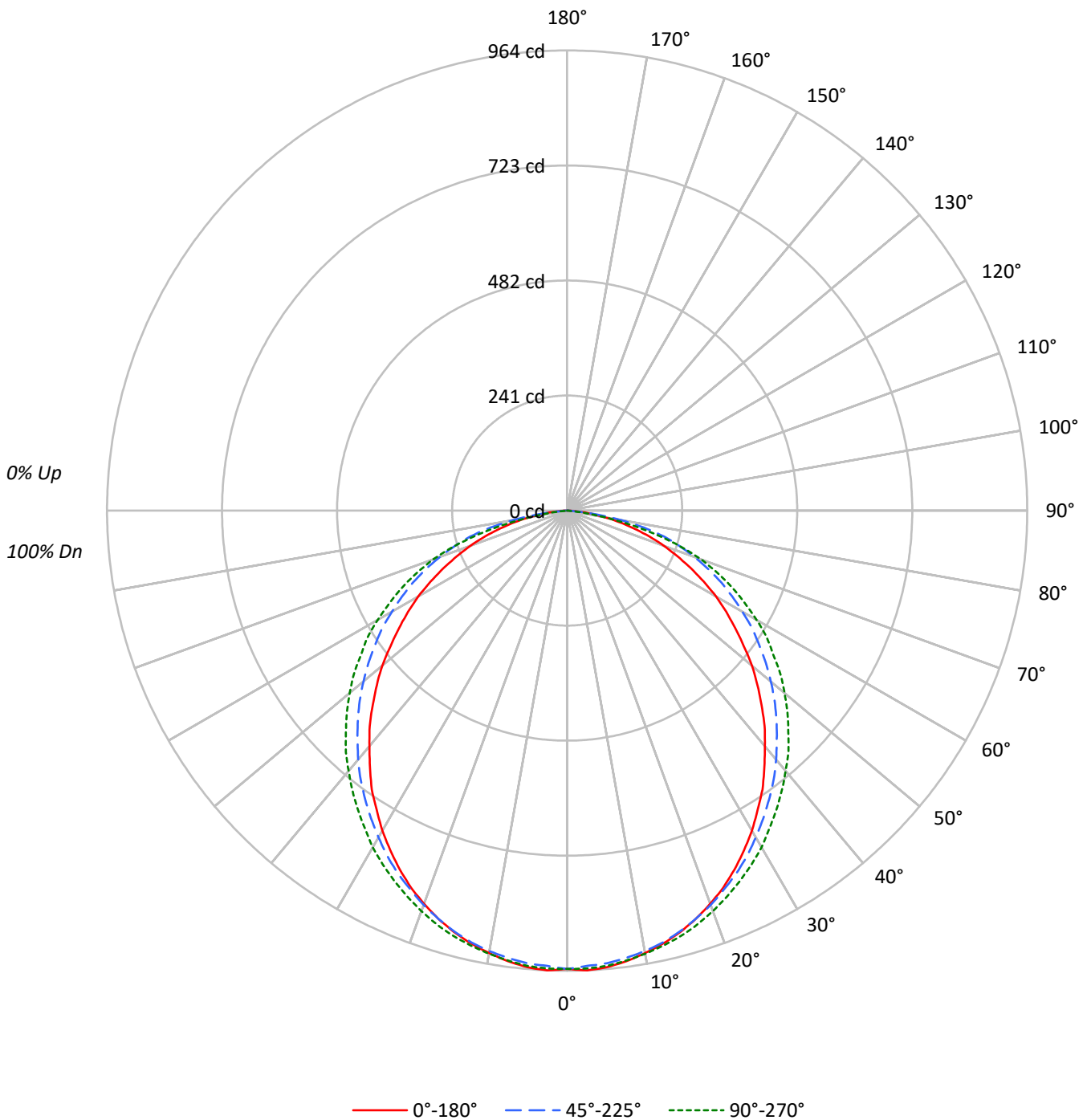
Lumens per Lamp: N/A
Luminaire Lumens: 2684.0 lumens
Efficiency: N/A
Efficacy: 141.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19
Input Voltage (V): 120
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: 25 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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	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	102	102	100					100			
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84					84			
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70					70			
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59					59			
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50					50			
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43					43			
6	70	57	48	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2584	2584	2584
5°	2594	2572	2586
10°	2572	2561	2576
15°	2547	2544	2570
20°	2510	2518	2557
25°	2463	2491	2542
30°	2405	2456	2531
35°	2344	2423	2512
40°	2264	2392	2501
45°	2191	2361	2494
50°	2117	2332	2490
55°	2018	2303	2474
60°	1938	2279	2468
65°	1820	2267	2430
70°	1698	2228	2345
75°	1500	2188	1978
80°	1212	1776	1170
85°	874	500	124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	3.4
10°-20°	258.6	9.6
20°-30°	387.9	14.5
30°-40°	462.4	17.2
40°-50°	477.4	17.8
50°-60°	434.9	16.2
60°-70°	340.7	12.7
70°-80°	197.1	7.3
80°-90°	34.3	1.3
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°	737.2	27.5
0°-40°	1199.6	44.7
0°-60°	2111.9	78.7
0°-90°	2684.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2684.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	960	958	952	959	958	91
15°	914	913	913	922	922	258
25°	829	832	839	855	856	382
35°	713	720	738	761	765	445
45°	576	591	620	649	655	445
55°	430	452	491	522	527	386
65°	286	312	356	379	382	283
75°	144	175	210	204	190	154
85°	28	38	16	5	4	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	960.2	960.2	960.2	960.2	960.2
2.5°	964.2	960.2	954.8	960.2	960.2
5°	960.2	957.5	952.1	958.8	957.5
7.5°	952.1	949.4	945.4	952.1	950.8
10°	941.3	940.0	937.3	945.4	942.7
12.5°	929.2	927.8	926.5	934.6	933.2
15°	914.3	913.0	913.0	922.4	922.4
17.5°	896.8	896.8	896.8	908.9	908.9
20°	876.6	876.6	879.3	892.8	892.8
22.5°	855.0	855.0	859.0	873.9	875.2
25°	829.4	832.1	838.8	855.0	856.3
27.5°	802.4	806.5	815.9	833.4	836.1
30°	774.1	778.1	790.3	810.5	814.5
32.5°	743.1	749.8	764.6	784.9	788.9
35°	713.4	720.1	737.7	760.6	764.6
37.5°	678.3	689.1	710.7	732.3	739.0
40°	644.6	656.8	681.0	706.7	712.1
42.5°	612.3	623.0	650.0	678.3	686.4
45°	575.8	590.7	620.3	648.7	655.4
47.5°	540.8	555.6	589.3	619.0	625.7
50°	505.7	520.6	557.0	586.6	594.7
52.5°	466.6	488.2	524.6	554.3	563.7
55°	430.2	451.8	490.9	521.9	527.3
57.5°	395.1	416.7	459.9	488.2	496.3
60°	360.1	381.6	423.5	451.8	458.5
62.5°	322.3	346.6	389.7	414.0	419.4
65°	285.9	311.5	356.0	379.0	381.6
67.5°	249.5	276.5	319.6	338.5	341.2
70°	215.8	242.7	283.2	300.7	298.0
72.5°	180.7	207.7	246.8	256.2	248.1
75°	144.3	175.3	210.4	203.6	190.2
77.5°	111.9	141.6	164.5	144.3	133.5
80°	78.2	109.2	114.6	89.0	75.5
82.5°	51.2	76.9	62.0	37.8	33.7
85°	28.3	37.8	16.2	5.4	4.0
87.5°	9.4	5.4	2.7	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)