

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: P274805

Luminaire Tested: **24CZ2-45-RDP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P274805  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45-RDP-UNV-L940-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (84) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

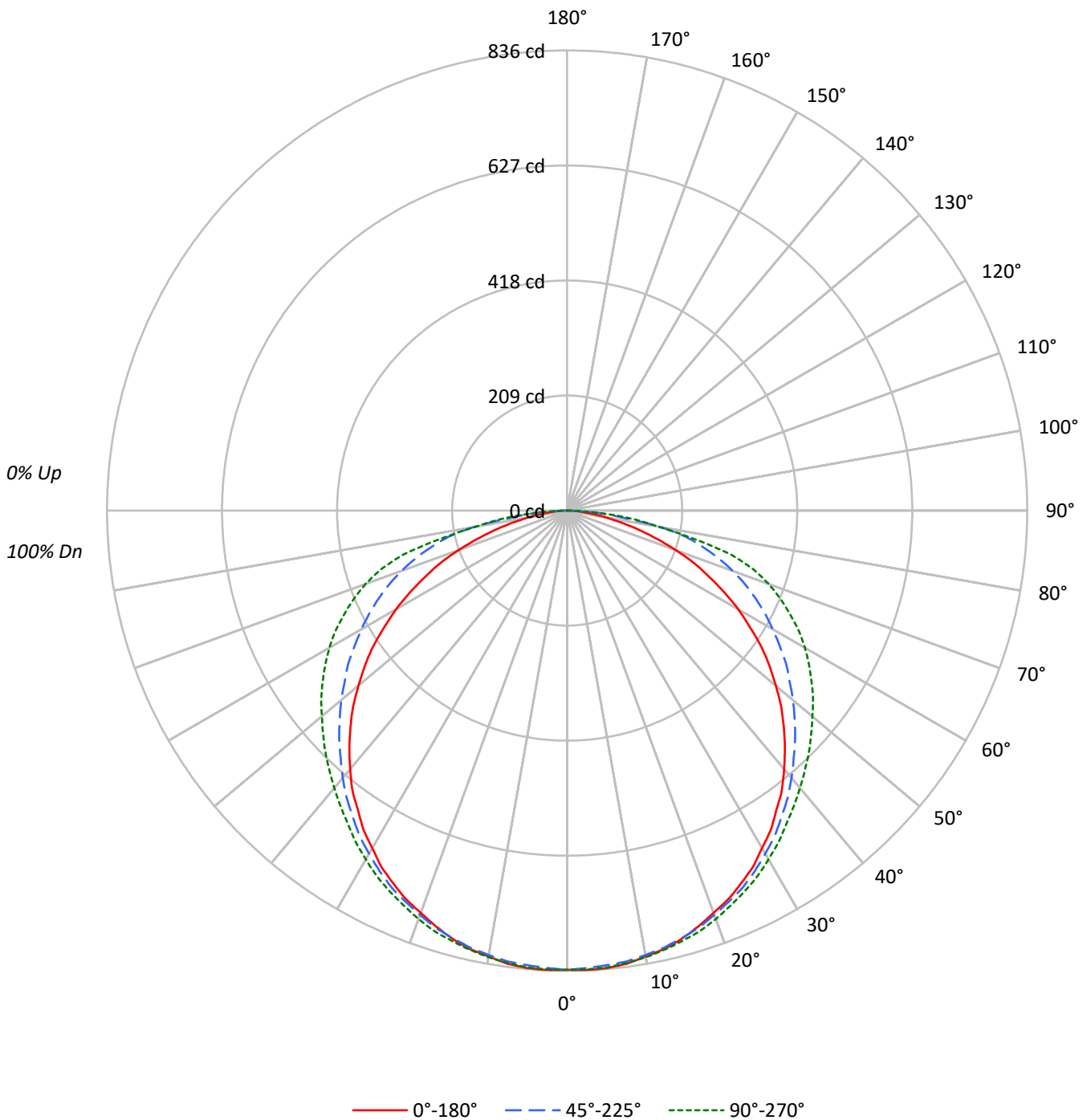
Lumens per Lamp: N/A  
Luminaire Lumens: 2653.0 lumens  
Efficiency: N/A  
Efficacy: 61.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 42.9  
Input Voltage (V): NR  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1123	1123	1123
5°	1127	1120	1125
10°	1124	1120	1126
15°	1122	1120	1127
20°	1114	1119	1131
25°	1110	1121	1133
30°	1100	1118	1137
35°	1089	1115	1141
40°	1077	1114	1156
45°	1059	1114	1182
50°	1036	1121	1217
55°	1009	1139	1272
60°	967	1161	1342
65°	905	1202	1424
70°	823	1258	1532
75°	698	1327	1601
80°	551	1336	1295
85°	406	1016	1138



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.1	3.0
10°-20°	227.8	8.6
20°-30°	348.3	13.1
30°-40°	425.8	16.0
40°-50°	453.8	17.1
50°-60°	433.9	16.4
60°-70°	367.6	13.9
70°-80°	247.0	9.3
80°-90°	69.7	2.6
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°	655.2	24.7
0°-40°	1081.0	40.7
0°-60°	1968.7	74.2
0°-90°	2653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2653.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	834	834	834	834	834	
5°	834	833	829	833	833	79
15°	805	805	804	811	809	227
25°	747	750	755	762	763	344
35°	663	668	679	692	695	415
45°	557	566	586	611	621	429
55°	430	446	486	524	542	383
65°	284	313	378	428	447	282
75°	134	183	255	299	308	144
85°	26	54	66	71	74	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	834.3	834.3	834.3	834.3	834.3
2.5°	835.6	835.6	831.7	834.3	834.3
5°	834.3	833.0	829.0	833.0	833.0
7.5°	830.3	829.0	826.4	830.3	829.0
10°	822.4	822.4	819.8	823.8	823.8
12.5°	815.9	814.6	813.2	818.5	817.2
15°	805.3	805.3	804.0	810.6	809.3
17.5°	792.2	793.5	794.8	800.1	801.4
20°	777.7	780.3	781.7	789.6	789.6
22.5°	764.5	765.9	768.5	776.4	776.4
25°	747.4	750.1	755.3	761.9	763.2
27.5°	730.3	731.7	738.2	747.4	748.8
30°	708.0	711.9	719.8	730.3	731.7
32.5°	688.2	692.2	701.4	711.9	714.5
35°	663.2	668.5	679.0	692.2	694.8
37.5°	640.9	644.8	658.0	672.4	676.4
40°	613.2	621.1	634.3	651.4	658.0
42.5°	585.6	593.5	609.3	631.6	639.5
45°	556.6	565.8	585.6	610.6	621.1
47.5°	527.7	538.2	560.6	589.5	601.4
50°	494.8	507.9	535.6	568.5	581.6
52.5°	463.2	479.0	509.3	546.1	563.2
55°	430.3	446.1	485.6	523.7	542.2
57.5°	393.5	414.5	457.9	501.4	521.1
60°	359.2	379.0	431.6	479.0	498.7
62.5°	322.4	348.7	405.3	455.3	475.0
65°	284.2	313.2	377.7	427.7	447.4
67.5°	250.0	281.6	350.0	400.0	419.8
70°	209.2	248.7	319.8	369.8	389.5
72.5°	171.1	214.5	288.2	336.9	355.3
75°	134.2	182.9	255.3	298.7	307.9
77.5°	100.0	151.3	221.1	239.5	232.9
80°	71.1	121.1	172.4	163.2	167.1
82.5°	46.1	92.1	106.6	121.1	125.0
85°	26.3	54.0	65.8	71.1	73.7
87.5°	11.8	19.7	26.3	26.3	25.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)