

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: P230474

Luminaire Tested: **24CZ-LD5-45-RDP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230474  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25696)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-45-RDP-UNV-L940-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH RDP LENS  
Light Source: (168) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2596.4 lumens  
Efficiency: N/A  
Efficacy: 72.7 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

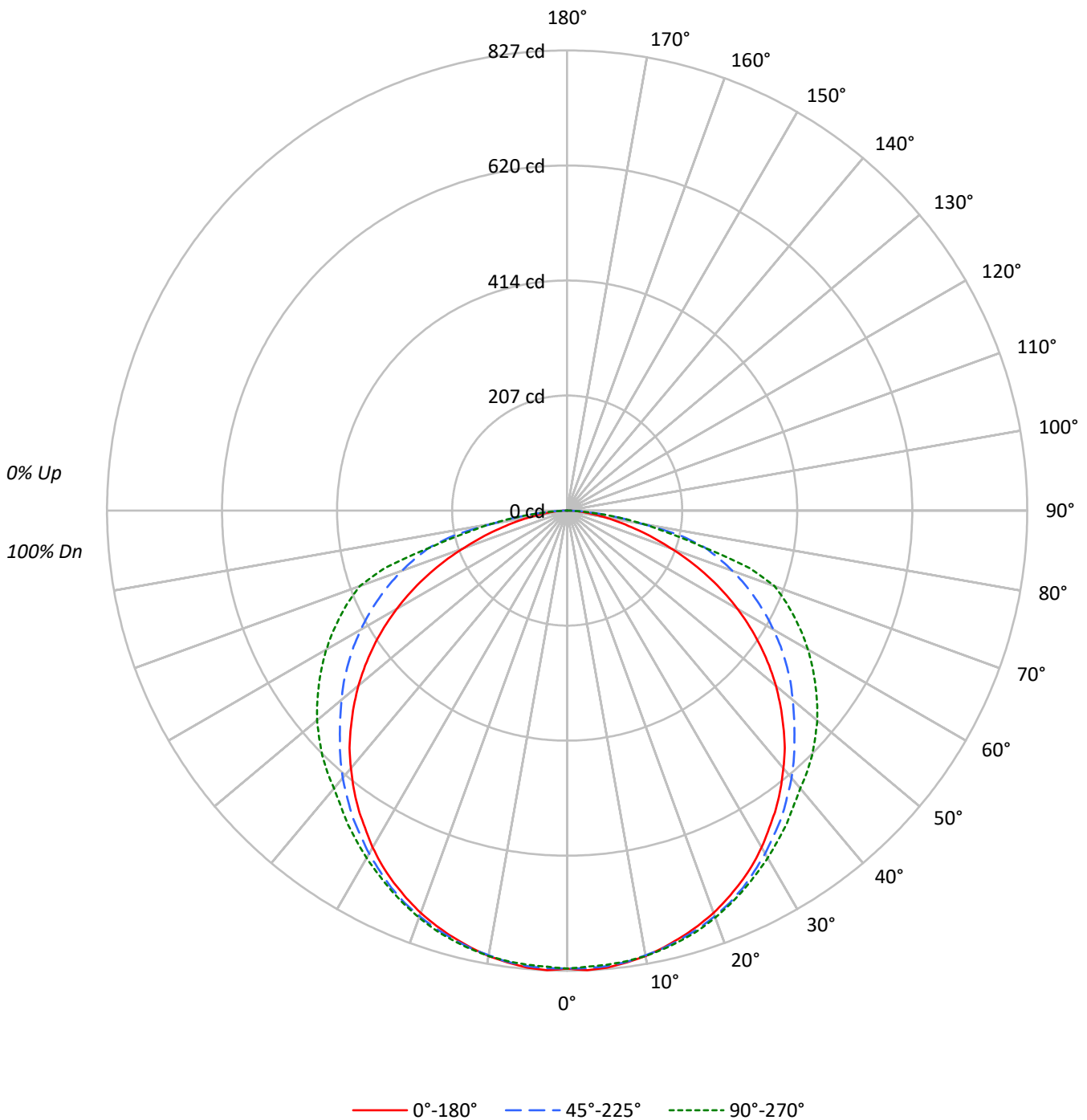
Input Watts (W): 35.69  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	101	97	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	34	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	27
9	55	41	33	27	53	41	32	27	39	32	27	38	32	27	37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22

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

	0°	45°	90°
0°	1107	1107	1107
5°	1113	1110	1107
10°	1111	1109	1111
15°	1106	1109	1113
20°	1102	1111	1115
25°	1095	1110	1116
30°	1086	1106	1120
35°	1075	1104	1129
40°	1062	1102	1145
45°	1046	1099	1184
50°	1025	1108	1228
55°	995	1127	1277
60°	953	1152	1345
65°	887	1188	1432
70°	784	1242	1559
75°	658	1329	1309
80°	525	1050	1089
85°	414	710	651



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	3.0
10°-20°	224.7	8.7
20°-30°	343.2	13.2
30°-40°	419.6	16.2
40°-50°	449.1	17.3
50°-60°	430.8	16.6
60°-70°	363.7	14.0
70°-80°	232.4	9.0
80°-90°	55.0	2.1
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°	645.9	24.9
0°-40°	1065.5	41.0
0°-60°	1945.3	74.9
0°-90°	2596.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2596.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	824	819	822	820	819	78
15°	794	791	796	799	799	224
25°	738	736	748	750	752	340
35°	654	660	672	681	688	409
45°	550	558	578	604	622	424
55°	424	438	481	524	544	379
65°	279	306	373	426	450	275
75°	126	180	256	261	252	136
85°	27	45	46	45	42	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	823.1	823.1	823.1	823.1	823.1
2.5°	826.9	821.8	823.1	823.1	820.5
5°	824.4	819.3	821.8	820.5	819.3
7.5°	819.3	815.4	818.0	818.0	816.7
10°	812.9	809.0	811.6	812.9	812.9
12.5°	803.9	801.4	805.2	805.2	806.5
15°	793.7	791.1	796.3	798.8	798.8
17.5°	782.2	780.9	787.3	788.6	789.9
20°	769.4	768.1	775.8	775.8	778.4
22.5°	754.1	752.8	763.0	763.0	765.6
25°	737.5	736.2	747.7	750.2	751.5
27.5°	719.6	718.3	729.8	733.6	736.2
30°	699.1	699.1	711.9	717.0	720.9
32.5°	676.1	680.0	691.5	699.1	704.2
35°	654.4	659.5	672.3	681.2	687.6
37.5°	630.1	635.2	649.3	660.8	668.5
40°	604.5	610.9	627.6	640.3	651.8
42.5°	579.0	585.4	603.3	622.4	637.8
45°	549.6	558.5	577.7	604.5	622.4
47.5°	520.2	529.1	553.4	586.7	604.5
50°	489.5	499.7	529.1	567.5	586.7
52.5°	457.6	469.1	506.1	547.0	566.2
55°	424.3	438.4	480.6	524.0	544.5
57.5°	389.8	405.2	455.0	501.0	522.7
60°	354.0	373.2	428.2	476.7	499.7
62.5°	317.0	340.0	401.3	451.2	475.5
65°	278.6	305.5	373.2	425.6	449.9
67.5°	239.0	274.8	345.1	400.0	424.3
70°	199.4	241.6	315.7	371.9	396.2
72.5°	162.3	210.9	286.3	338.7	343.8
75°	126.5	180.2	255.6	260.7	251.8
77.5°	94.6	149.5	210.9	187.9	186.6
80°	67.7	120.1	135.5	139.3	140.6
82.5°	44.7	90.7	88.2	90.7	89.5
85°	26.8	44.7	46.0	44.7	42.2
87.5°	12.8	16.6	12.8	11.5	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)