

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: P261198

Luminaire Tested: **24CZ-LD5-70-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261198  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-70-S-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7306.0 lumens  
Efficiency: N/A  
Efficacy: 133.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

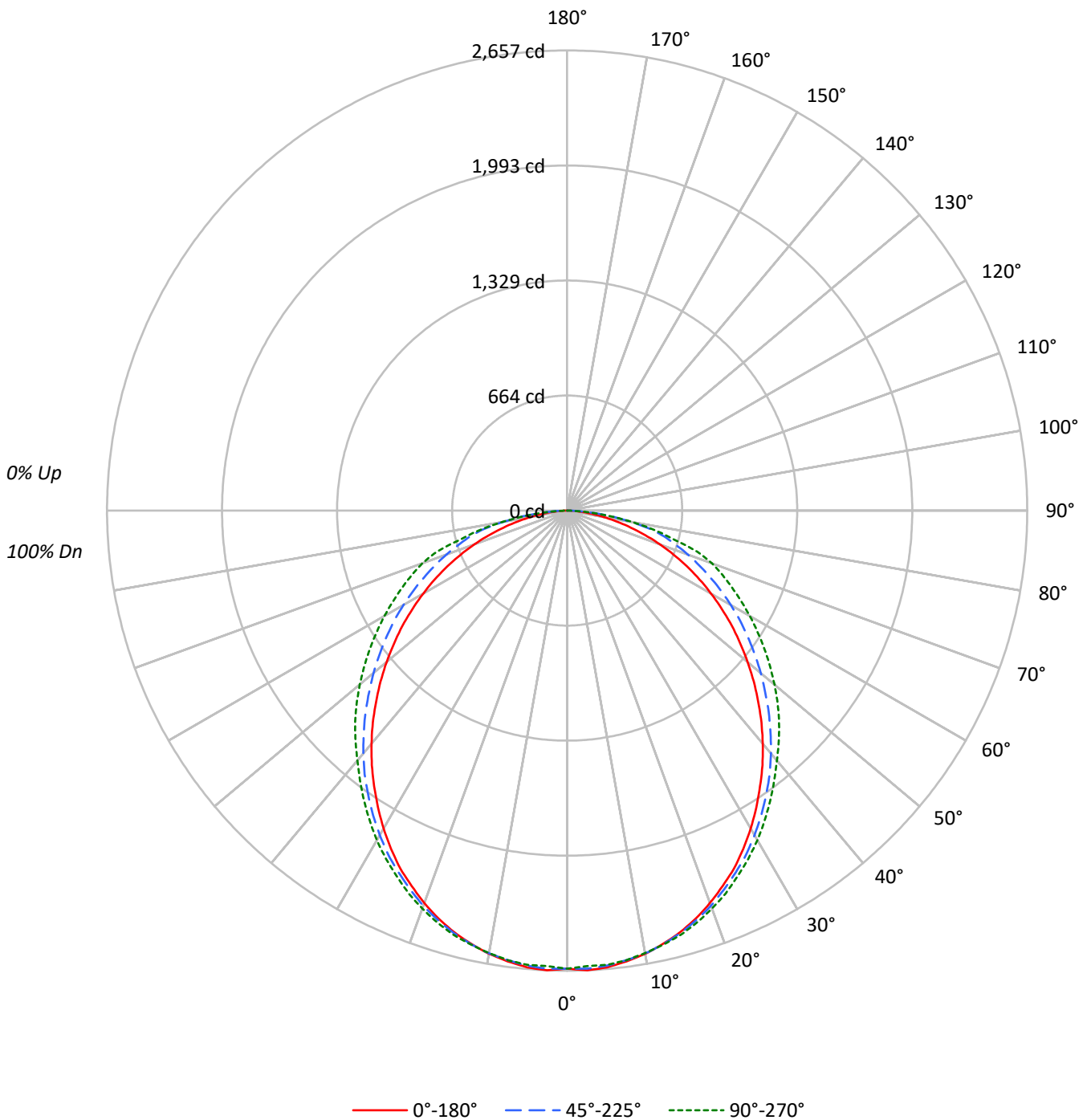
Input Watts (W): 54.684  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50					50			
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	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	35	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°	3559	3559	3559
5°	3576	3562	3556
10°	3550	3547	3544
15°	3511	3518	3532
20°	3453	3477	3502
25°	3385	3421	3457
30°	3293	3361	3414
35°	3190	3290	3358
40°	3087	3215	3309
45°	2970	3132	3294
50°	2849	3053	3272
55°	2726	2988	3262
60°	2584	2937	3277
65°	2430	2902	3344
70°	2238	2917	3500
75°	1984	3020	3261
80°	1657	2863	2938
85°	1238	2289	2101



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.1	3.4
10°-20°	711.2	9.7
20°-30°	1059.9	14.5
30°-40°	1247.6	17.1
40°-50°	1267.9	17.4
50°-60°	1139.9	15.6
60°-70°	900.5	12.3
70°-80°	571.3	7.8
80°-90°	157.7	2.2
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°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2021.1	27.7
0°-40°	3268.7	44.7
0°-60°	5676.5	77.7
0°-90°	7306.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7306.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2645	2645	2645	2645	2645	
5°	2647	2626	2638	2633	2633	251
15°	2521	2509	2526	2533	2536	710
25°	2280	2278	2305	2319	2329	1048
35°	1942	1954	2003	2025	2044	1215
45°	1561	1583	1646	1694	1731	1204
55°	1162	1191	1274	1356	1390	1038
65°	763	802	912	1011	1050	756
75°	382	447	581	632	627	406
85°	80	139	148	136	136	98
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2644.9	2644.9	2644.9	2644.9	2644.9
2.5°	2657.1	2637.6	2647.3	2642.5	2632.8
5°	2647.3	2625.5	2637.6	2632.8	2632.8
7.5°	2625.5	2608.4	2618.2	2615.7	2618.2
10°	2598.7	2581.7	2596.3	2596.3	2593.9
12.5°	2562.3	2547.7	2564.7	2564.7	2567.1
15°	2520.9	2508.8	2525.8	2533.1	2535.5
17.5°	2469.9	2457.7	2479.6	2486.9	2494.2
20°	2411.5	2406.7	2428.5	2435.8	2445.6
22.5°	2345.9	2345.9	2367.8	2377.5	2392.1
25°	2280.3	2277.8	2304.6	2319.2	2328.9
27.5°	2202.5	2204.9	2238.9	2253.5	2265.7
30°	2119.8	2124.7	2163.6	2180.6	2197.6
32.5°	2032.3	2042.0	2085.8	2105.2	2122.2
35°	1942.4	1954.5	2003.1	2025.0	2044.5
37.5°	1852.4	1869.4	1920.5	1942.4	1964.2
40°	1757.6	1772.2	1830.5	1857.3	1884.0
42.5°	1660.4	1679.8	1738.2	1777.0	1808.6
45°	1560.7	1582.6	1645.8	1694.4	1730.9
47.5°	1461.0	1490.2	1551.0	1616.6	1648.2
50°	1361.3	1390.5	1458.6	1531.5	1563.1
52.5°	1259.2	1288.4	1366.2	1441.6	1475.6
55°	1162.0	1191.2	1273.8	1356.5	1390.5
57.5°	1059.9	1091.5	1183.9	1269.0	1303.0
60°	960.2	991.8	1091.5	1181.5	1217.9
62.5°	863.0	897.0	1001.6	1096.4	1132.8
65°	763.3	802.2	911.6	1011.3	1050.2
67.5°	666.1	709.8	824.1	928.6	970.0
70°	568.8	619.9	741.4	848.4	889.7
72.5°	474.0	530.0	658.8	765.8	787.6
75°	381.7	447.3	581.0	632.1	627.2
77.5°	294.1	367.1	493.5	503.2	517.8
80°	213.9	294.1	369.5	389.0	379.2
82.5°	141.0	221.2	265.0	255.3	252.8
85°	80.2	138.6	148.3	136.1	136.1
87.5°	34.0	55.9	48.6	36.5	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)