

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: P276433

Luminaire Tested: **24CZ2-75HE-S-UNV-L93050-W2A1-U-3500K**

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: P276433  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-75HE-S-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6368.8 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

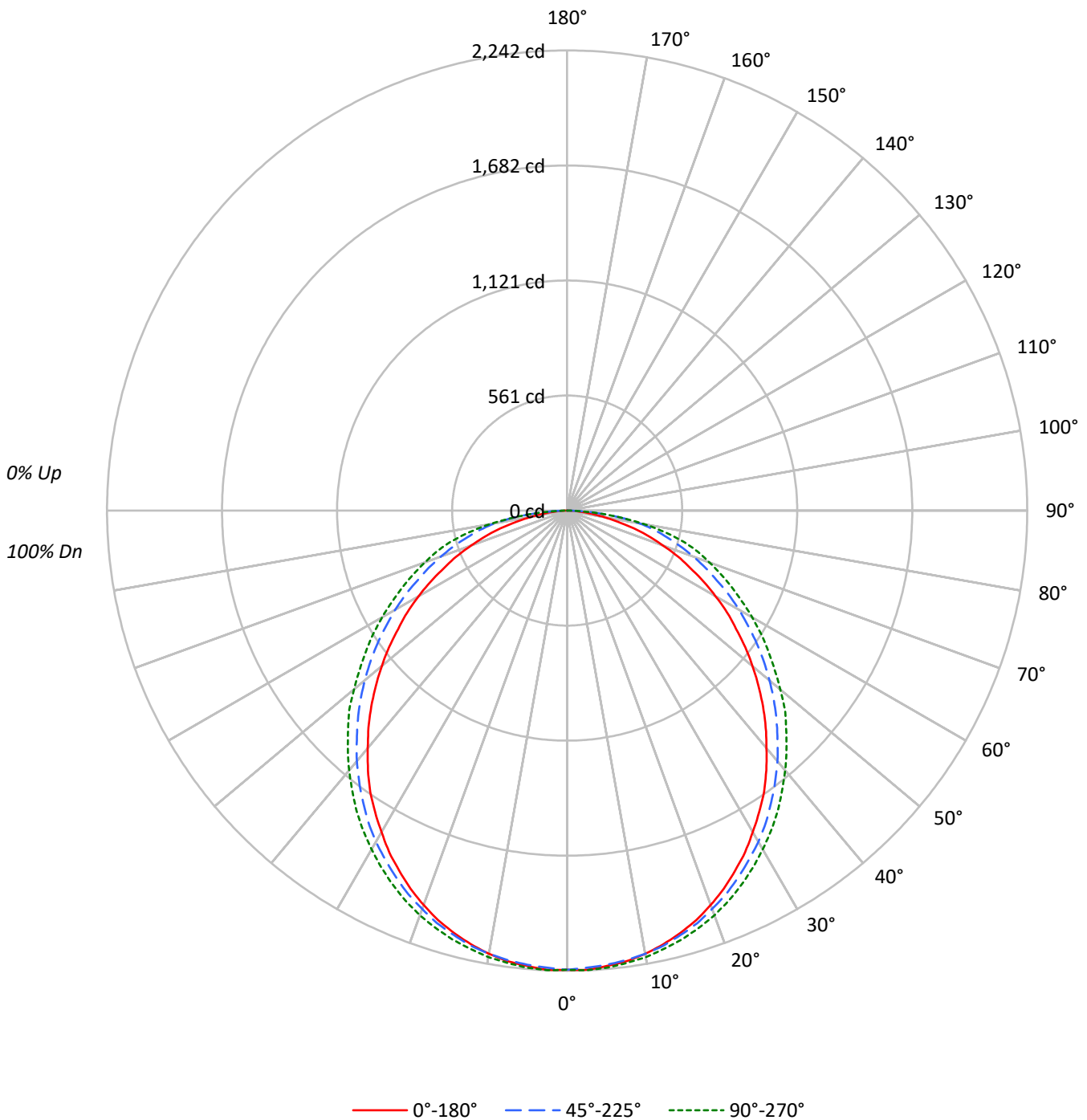
Input Watts (W): 59.513676  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	3010	3010	3010
5°	3008	3000	3019
10°	2996	2996	3018
15°	2967	2981	3012
20°	2928	2957	3004
25°	2874	2928	2985
30°	2810	2895	2961
35°	2748	2848	2937
40°	2654	2800	2903
45°	2567	2745	2872
50°	2469	2693	2837
55°	2358	2643	2809
60°	2248	2602	2803
65°	2106	2557	2821
70°	1950	2570	2897
75°	1746	2619	3060
80°	1411	2775	2994
85°	1062	2436	2373



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	211.8	3.3
10°-20°	605.2	9.5
20°-30°	909.8	14.3
30°-40°	1083.7	17.0
40°-50°	1109.1	17.4
50°-60°	998.6	15.7
60°-70°	784.2	12.3
70°-80°	508.9	8.0
80°-90°	157.4	2.5
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°	1726.9	27.1
0°-40°	2810.6	44.1
0°-60°	4918.3	77.2
0°-90°	6368.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6368.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2237	2237	2237	2237	2237	
5°	2227	2231	2221	2233	2235	212
15°	2130	2136	2140	2158	2163	601
25°	1936	1952	1972	2005	2011	892
35°	1673	1693	1734	1776	1788	1044
45°	1349	1382	1442	1497	1509	1040
55°	1005	1050	1127	1186	1198	901
65°	662	712	803	870	886	658
75°	336	400	504	572	589	355
85°	69	127	158	154	154	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2237.4	2237.4	2237.4	2237.4	2237.4
2.5°	2239.4	2239.4	2229.3	2239.4	2241.5
5°	2227.3	2231.3	2221.2	2233.4	2235.4
7.5°	2215.2	2215.2	2209.1	2221.2	2223.2
10°	2192.9	2194.9	2192.9	2207.1	2209.1
12.5°	2164.6	2168.6	2170.6	2184.8	2186.8
15°	2130.2	2136.3	2140.3	2158.5	2162.6
17.5°	2091.8	2097.8	2107.9	2128.2	2132.2
20°	2045.2	2053.3	2065.5	2091.8	2097.8
22.5°	1994.7	2002.7	2023.0	2047.2	2057.4
25°	1936.0	1952.2	1972.4	2004.8	2010.8
27.5°	1877.3	1891.5	1917.8	1952.2	1960.3
30°	1808.5	1830.8	1863.2	1897.5	1905.6
32.5°	1741.8	1764.0	1802.5	1838.9	1849.0
35°	1673.0	1693.2	1733.7	1776.2	1788.3
37.5°	1594.1	1620.4	1664.9	1707.4	1719.5
40°	1511.2	1543.5	1594.1	1638.6	1652.8
42.5°	1432.3	1466.7	1517.2	1565.8	1582.0
45°	1349.3	1381.7	1442.4	1497.0	1509.1
47.5°	1264.4	1300.8	1365.5	1420.1	1440.4
50°	1179.4	1217.8	1286.6	1343.3	1355.4
52.5°	1094.4	1134.9	1207.7	1268.4	1274.5
55°	1005.4	1049.9	1126.8	1185.5	1197.6
57.5°	924.5	962.9	1045.9	1106.6	1120.7
60°	835.5	878.0	967.0	1023.6	1041.8
62.5°	750.5	795.0	888.1	944.7	960.9
65°	661.5	712.1	803.1	869.9	886.1
67.5°	584.6	633.2	730.3	795.0	811.2
70°	495.6	550.2	653.4	720.2	736.4
72.5°	418.8	475.4	578.6	643.3	667.6
75°	335.8	400.5	503.7	572.5	588.7
77.5°	254.9	329.7	434.9	487.5	487.5
80°	182.1	261.0	358.1	382.3	386.4
82.5°	119.4	196.2	265.0	263.0	263.0
85°	68.8	127.4	157.8	153.7	153.7
87.5°	26.3	52.6	56.6	56.6	54.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)