

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: P276432

Luminaire Tested: **24CZ2-75HE-S-UNV-L93050-W2A1-U-3000K**

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: P276432  
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-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5829.3 lumens  
Efficiency: N/A  
Efficacy: 97.6 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

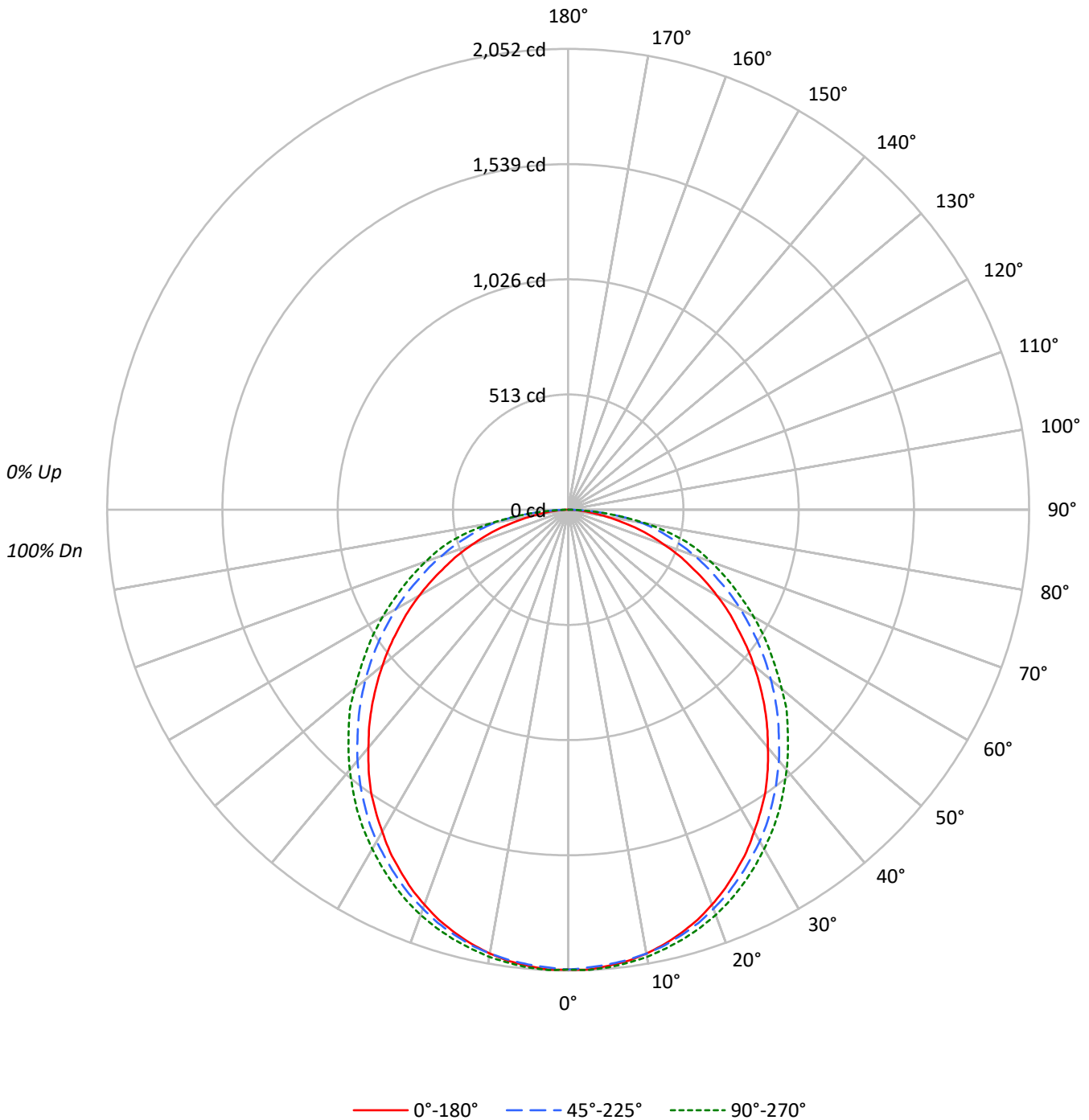
Input Watts (W): 59.747292  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	2755	2755	2755
5°	2753	2746	2763
10°	2742	2742	2763
15°	2716	2729	2757
20°	2680	2707	2749
25°	2631	2680	2732
30°	2572	2649	2710
35°	2515	2606	2689
40°	2429	2563	2657
45°	2350	2512	2628
50°	2260	2465	2597
55°	2159	2419	2571
60°	2058	2382	2566
65°	1928	2340	2582
70°	1784	2353	2651
75°	1598	2397	2801
80°	1291	2539	2741
85°	973	2229	2172



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.9	3.3
10°-20°	554.0	9.5
20°-30°	832.7	14.3
30°-40°	991.9	17.0
40°-50°	1015.2	17.4
50°-60°	914.0	15.7
60°-70°	717.8	12.3
70°-80°	465.8	8.0
80°-90°	144.1	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°	1580.6	27.1
0°-40°	2572.5	44.1
0°-60°	4501.7	77.2
0°-90°	5829.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5829.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2048	2048	2048	2048	2048	
5°	2039	2042	2033	2044	2046	194
15°	1950	1955	1959	1976	1979	550
25°	1772	1787	1805	1835	1840	816
35°	1531	1550	1587	1626	1637	955
45°	1235	1265	1320	1370	1381	952
55°	920	961	1031	1085	1096	825
65°	606	652	735	796	811	603
75°	307	367	461	524	539	325
85°	63	117	144	141	141	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2047.9	2047.9	2047.9	2047.9	2047.9
2.5°	2049.7	2049.7	2040.5	2049.7	2051.6
5°	2038.6	2042.3	2033.1	2044.2	2046.0
7.5°	2027.5	2027.5	2022.0	2033.1	2034.9
10°	2007.2	2009.0	2007.2	2020.1	2022.0
12.5°	1981.2	1984.9	1986.8	1999.7	2001.6
15°	1949.8	1955.3	1959.0	1975.7	1979.4
17.5°	1914.6	1920.1	1929.4	1947.9	1951.6
20°	1872.0	1879.4	1890.5	1914.6	1920.1
22.5°	1825.7	1833.1	1851.6	1873.8	1883.1
25°	1772.0	1786.8	1805.3	1835.0	1840.5
27.5°	1718.3	1731.3	1755.3	1786.8	1794.2
30°	1655.3	1675.7	1705.3	1736.8	1744.2
32.5°	1594.2	1614.6	1649.8	1683.1	1692.4
35°	1531.3	1549.8	1586.8	1625.7	1636.8
37.5°	1459.1	1483.1	1523.9	1562.8	1573.9
40°	1383.2	1412.8	1459.1	1499.8	1512.8
42.5°	1310.9	1342.4	1388.7	1433.2	1448.0
45°	1235.0	1264.7	1320.2	1370.2	1381.3
47.5°	1157.3	1190.6	1249.8	1299.8	1318.4
50°	1079.5	1114.7	1177.6	1229.5	1240.6
52.5°	1001.7	1038.8	1105.4	1161.0	1166.5
55°	920.3	961.0	1031.3	1085.0	1096.2
57.5°	846.2	881.4	957.3	1012.8	1025.8
60°	764.7	803.6	885.1	936.9	953.6
62.5°	686.9	727.7	812.9	864.7	879.5
65°	605.5	651.8	735.1	796.2	811.0
67.5°	535.1	579.6	668.4	727.7	742.5
70°	453.6	503.6	598.1	659.2	674.0
72.5°	383.3	435.1	529.6	588.8	611.0
75°	307.4	366.6	461.1	524.0	538.8
77.5°	233.3	301.8	398.1	446.2	446.2
80°	166.6	238.9	327.7	350.0	353.7
82.5°	109.2	179.6	242.6	240.7	240.7
85°	63.0	116.7	144.4	140.7	140.7
87.5°	24.1	48.1	51.8	51.8	50.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)