

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: P389089

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L930-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P389089  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-75HE-SQR-UNV-L930-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5925.5 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

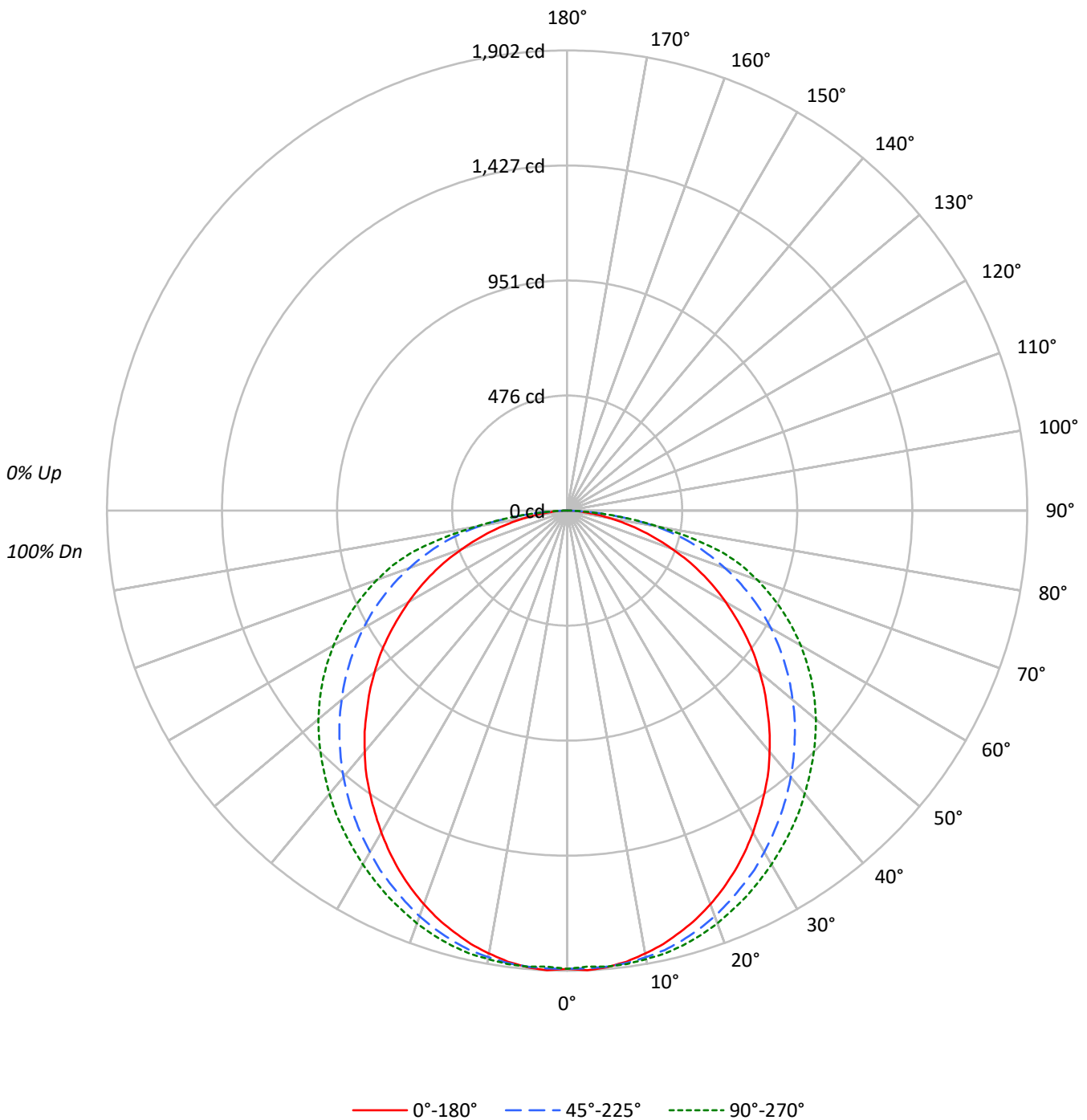
Input Watts (W): 55.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24

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

	0°	45°	90°
0°	2548	2548	2548
5°	2558	2556	2556
10°	2540	2561	2572
15°	2513	2562	2589
20°	2480	2555	2600
25°	2437	2542	2609
30°	2386	2532	2623
35°	2337	2526	2648
40°	2285	2526	2684
45°	2226	2532	2737
50°	2175	2548	2810
55°	2111	2575	2896
60°	2038	2617	3001
65°	1950	2666	3127
70°	1809	2733	3287
75°	1638	2828	3438
80°	1380	2835	2957
85°	1057	2144	2144



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.8	3.0
10°-20°	517.3	8.7
20°-30°	785.7	13.3
30°-40°	955.7	16.1
40°-50°	1017.5	17.2
50°-60°	969.1	16.4
60°-70°	810.5	13.7
70°-80°	540.4	9.1
80°-90°	149.5	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°	1482.8	25.0
0°-40°	2438.5	41.2
0°-60°	4425.2	74.7
0°-90°	5925.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5925.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1894	1894	1894	1894	1894	
5°	1894	1882	1892	1892	1892	180
15°	1804	1808	1839	1853	1859	509
25°	1642	1663	1712	1742	1757	756
35°	1422	1464	1538	1589	1612	890
45°	1170	1233	1331	1405	1438	905
55°	900	978	1098	1194	1235	805
65°	612	702	838	941	982	605
75°	315	415	544	636	661	334
85°	68	127	139	137	139	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1894.1	1894.1	1894.1	1894.1	1894.1
2.5°	1901.9	1888.2	1894.1	1894.1	1886.3
5°	1894.1	1882.3	1892.1	1892.1	1892.1
7.5°	1880.4	1870.6	1886.3	1890.2	1890.2
10°	1858.9	1854.9	1874.5	1880.4	1882.3
12.5°	1835.4	1833.4	1860.8	1868.6	1874.5
15°	1804.1	1808.0	1839.3	1853.0	1858.9
17.5°	1770.8	1778.6	1813.9	1833.4	1839.3
20°	1731.7	1743.4	1784.5	1804.1	1815.8
22.5°	1688.6	1706.2	1749.3	1772.8	1786.5
25°	1641.7	1663.2	1712.1	1741.5	1757.1
27.5°	1590.8	1618.2	1674.9	1708.2	1723.8
30°	1536.0	1567.3	1629.9	1669.1	1688.6
32.5°	1479.3	1516.4	1584.9	1628.0	1651.4
35°	1422.5	1463.6	1538.0	1588.8	1612.3
37.5°	1365.8	1406.9	1489.0	1543.8	1573.2
40°	1301.2	1350.1	1438.2	1498.8	1528.2
42.5°	1238.6	1291.4	1385.3	1451.9	1483.2
45°	1170.1	1232.7	1330.6	1404.9	1438.2
47.5°	1107.5	1170.1	1275.8	1354.0	1391.2
50°	1039.0	1105.5	1217.1	1303.2	1342.3
52.5°	972.5	1041.0	1158.4	1250.3	1289.5
55°	900.1	978.3	1097.7	1193.6	1234.7
57.5°	827.7	911.8	1035.1	1134.9	1176.0
60°	757.2	843.3	972.5	1072.3	1115.3
62.5°	686.8	772.9	907.9	1009.7	1050.7
65°	612.4	702.5	837.5	941.2	982.3
67.5°	538.1	632.0	767.0	870.7	909.9
70°	459.8	559.6	694.6	796.4	835.5
72.5°	387.4	487.2	620.3	720.1	757.2
75°	315.0	414.8	544.0	635.9	661.4
77.5°	244.6	344.4	459.8	520.5	526.4
80°	178.1	272.0	365.9	383.5	381.6
82.5°	119.4	203.5	252.4	254.4	260.2
85°	68.5	127.2	138.9	137.0	138.9
87.5°	27.4	45.0	39.1	29.4	29.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)