

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: P389091

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L935-CD1-SDWPD1-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: P389091  
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-L935-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5998.8 lumens  
Efficiency: N/A  
Efficacy: 108.3 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

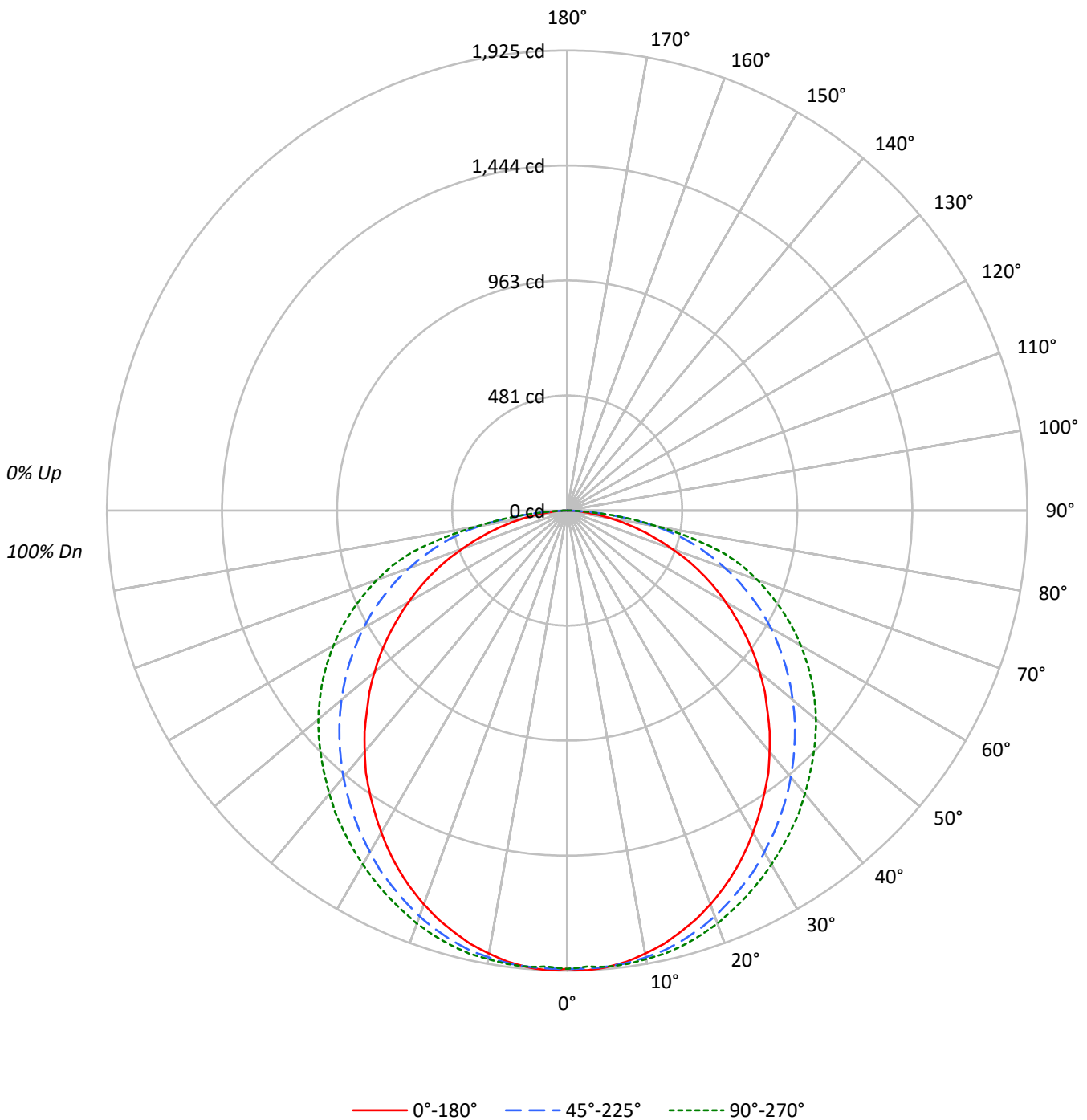
Input Watts (W): 55.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	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	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	2580	2580	2580
5°	2590	2587	2587
10°	2571	2593	2604
15°	2544	2594	2621
20°	2510	2587	2632
25°	2467	2573	2641
30°	2416	2564	2656
35°	2365	2557	2681
40°	2314	2557	2717
45°	2254	2563	2770
50°	2202	2579	2844
55°	2137	2607	2932
60°	2063	2649	3038
65°	1974	2699	3166
70°	1831	2766	3327
75°	1658	2863	3480
80°	1397	2870	2993
85°	1070	2171	2171



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	182.0	3.0
10°-20°	523.7	8.7
20°-30°	795.4	13.3
30°-40°	967.5	16.1
40°-50°	1030.1	17.2
50°-60°	981.1	16.4
60°-70°	820.5	13.7
70°-80°	547.0	9.1
80°-90°	151.4	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°	1501.1	25.0
0°-40°	2468.7	41.2
0°-60°	4479.9	74.7
0°-90°	5998.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5998.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1918	1918	1918	1918	1918	
5°	1918	1906	1916	1916	1916	182
15°	1826	1830	1862	1876	1882	515
25°	1662	1684	1733	1763	1779	765
35°	1440	1482	1557	1608	1632	901
45°	1185	1248	1347	1422	1456	916
55°	911	990	1111	1208	1250	815
65°	620	711	848	953	994	613
75°	319	420	551	644	670	338
85°	69	129	141	139	141	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1917.5	1917.5	1917.5	1917.5	1917.5
2.5°	1925.4	1911.6	1917.5	1917.5	1909.6
5°	1917.5	1905.6	1915.5	1915.5	1915.5
7.5°	1903.6	1893.7	1909.6	1913.5	1913.5
10°	1881.9	1877.9	1897.7	1903.6	1905.6
12.5°	1858.1	1856.1	1883.8	1891.8	1897.7
15°	1826.4	1830.3	1862.0	1875.9	1881.9
17.5°	1792.7	1800.6	1836.3	1856.1	1862.0
20°	1753.1	1765.0	1806.6	1826.4	1838.3
22.5°	1709.5	1727.3	1770.9	1794.7	1808.6
25°	1662.0	1683.8	1733.3	1763.0	1778.8
27.5°	1610.5	1638.2	1695.6	1729.3	1745.2
30°	1555.0	1586.7	1650.1	1689.7	1709.5
32.5°	1497.6	1535.2	1604.5	1648.1	1671.9
35°	1440.1	1481.7	1557.0	1608.5	1632.3
37.5°	1382.7	1424.3	1507.5	1562.9	1592.6
40°	1317.3	1366.8	1456.0	1517.4	1547.1
42.5°	1253.9	1307.4	1402.5	1469.8	1501.5
45°	1184.6	1248.0	1347.0	1422.3	1456.0
47.5°	1121.2	1184.6	1291.5	1370.8	1408.4
50°	1051.9	1119.2	1232.1	1319.3	1358.9
52.5°	984.5	1053.8	1172.7	1265.8	1305.4
55°	911.2	990.4	1111.3	1208.3	1249.9
57.5°	837.9	923.1	1047.9	1148.9	1190.5
60°	766.6	853.8	984.5	1085.5	1129.1
62.5°	695.3	782.5	919.1	1022.1	1063.7
65°	620.0	711.1	847.8	952.8	994.4
67.5°	544.7	639.8	776.5	881.5	921.1
70°	465.5	566.5	703.2	806.2	845.8
72.5°	392.2	493.2	627.9	729.0	766.6
75°	318.9	420.0	550.7	643.8	669.5
77.5°	247.6	348.6	465.5	526.9	532.9
80°	180.3	275.3	370.4	388.3	386.3
82.5°	120.8	206.0	255.5	257.5	263.5
85°	69.3	128.8	140.6	138.7	140.6
87.5°	27.7	45.6	39.6	29.7	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)