

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: P389090

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L930-CD1-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: P389090
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-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: 5999.9 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

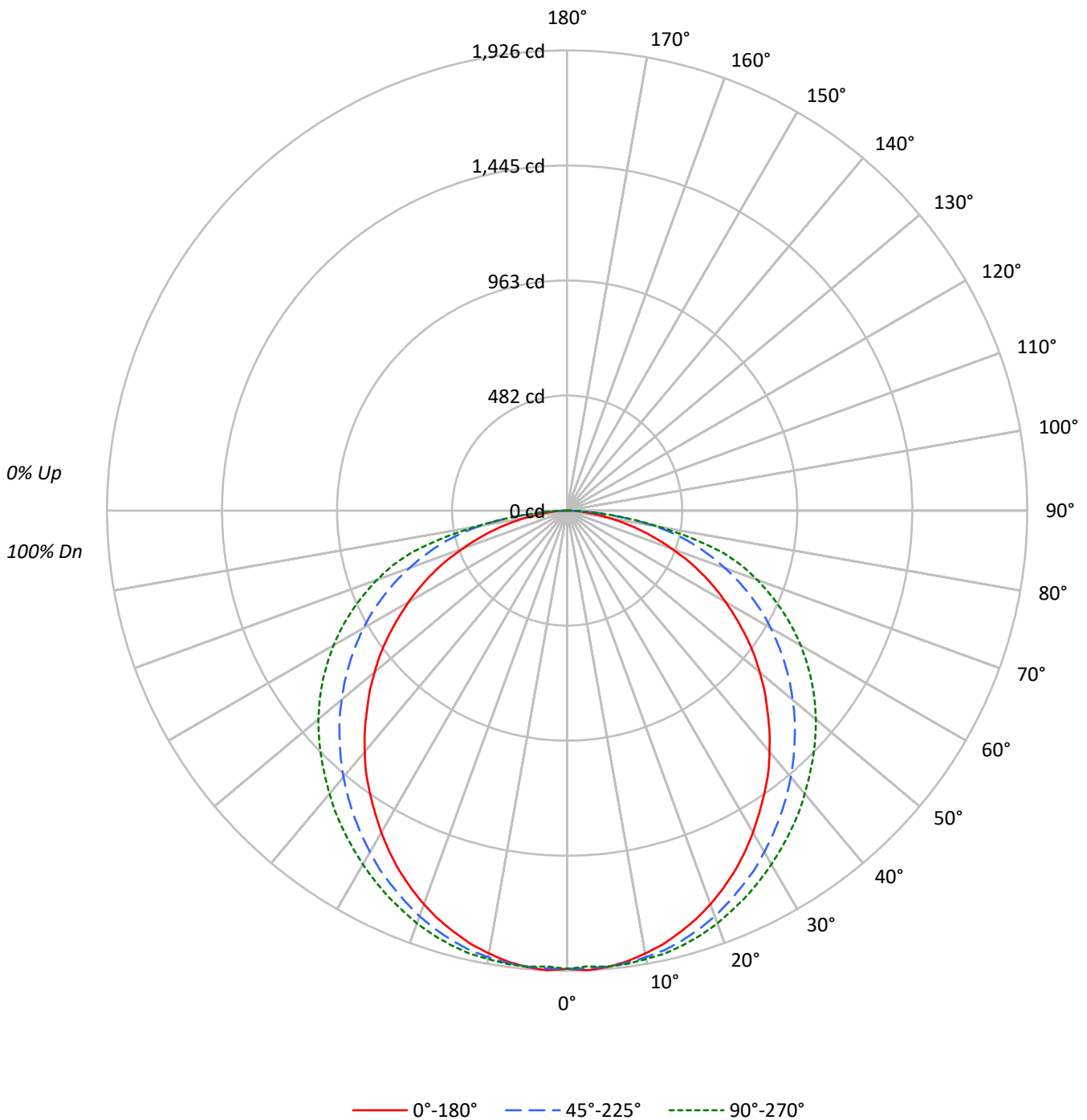
Input Watts (W): 55.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2581	2581	2581
5°	2590	2588	2588
10°	2572	2593	2604
15°	2545	2594	2622
20°	2511	2587	2633
25°	2468	2574	2641
30°	2416	2564	2656
35°	2366	2558	2682
40°	2314	2558	2718
45°	2254	2564	2771
50°	2202	2579	2845
55°	2138	2607	2933
60°	2063	2650	3039
65°	1974	2700	3167
70°	1832	2767	3328
75°	1658	2863	3481
80°	1397	2871	2993
85°	1070	2172	2172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.0	3.0
10°-20°	523.8	8.7
20°-30°	795.6	13.3
30°-40°	967.7	16.1
40°-50°	1030.3	17.2
50°-60°	981.3	16.4
60°-70°	820.6	13.7
70°-80°	547.1	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°	1501.4	25.0
0°-40°	2469.1	41.2
0°-60°	4480.7	74.7
0°-90°	5999.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5999.9	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°	1827	1831	1862	1876	1882	515
25°	1662	1684	1734	1763	1779	765
35°	1440	1482	1557	1609	1633	901
45°	1185	1248	1347	1422	1456	916
55°	911	991	1112	1209	1250	815
65°	620	711	848	953	995	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°	1917.9	1917.9	1917.9	1917.9	1917.9
2.5°	1925.8	1911.9	1917.9	1917.9	1909.9
5°	1917.9	1906.0	1915.9	1915.9	1915.9
7.5°	1904.0	1894.1	1909.9	1913.9	1913.9
10°	1882.2	1878.2	1898.0	1904.0	1906.0
12.5°	1858.4	1856.4	1884.2	1892.1	1898.0
15°	1826.7	1830.7	1862.4	1876.3	1882.2
17.5°	1793.0	1801.0	1836.6	1856.4	1862.4
20°	1753.4	1765.3	1806.9	1826.7	1838.6
22.5°	1709.8	1727.7	1771.2	1795.0	1808.9
25°	1662.3	1684.1	1733.6	1763.3	1779.2
27.5°	1610.8	1638.5	1696.0	1729.6	1745.5
30°	1555.3	1587.0	1650.4	1690.0	1709.8
32.5°	1497.8	1535.5	1604.8	1648.4	1672.2
35°	1440.4	1482.0	1557.3	1608.8	1632.6
37.5°	1382.9	1424.5	1507.7	1563.2	1592.9
40°	1317.5	1367.1	1456.2	1517.6	1547.4
42.5°	1254.1	1307.6	1402.7	1470.1	1501.8
45°	1184.8	1248.2	1347.3	1422.5	1456.2
47.5°	1121.4	1184.8	1291.8	1371.0	1408.7
50°	1052.0	1119.4	1232.3	1319.5	1359.1
52.5°	984.7	1054.0	1172.9	1266.0	1305.7
55°	911.4	990.6	1111.5	1208.6	1250.2
57.5°	838.1	923.3	1048.1	1149.1	1190.7
60°	766.7	853.9	984.7	1085.7	1129.3
62.5°	695.4	782.6	919.3	1022.3	1063.9
65°	620.1	711.3	848.0	953.0	994.6
67.5°	544.8	639.9	776.7	881.7	921.3
70°	465.6	566.6	703.3	806.4	846.0
72.5°	392.3	493.3	628.1	729.1	766.7
75°	319.0	420.0	550.8	643.9	669.7
77.5°	247.7	348.7	465.6	527.0	533.0
80°	180.3	275.4	370.5	388.3	386.3
82.5°	120.9	206.1	255.6	257.6	263.5
85°	69.3	128.8	140.7	138.7	140.7
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)