

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: P389831

Luminaire Tested: **24CZ2-60VHE-S-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: P389831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60VHE-S-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

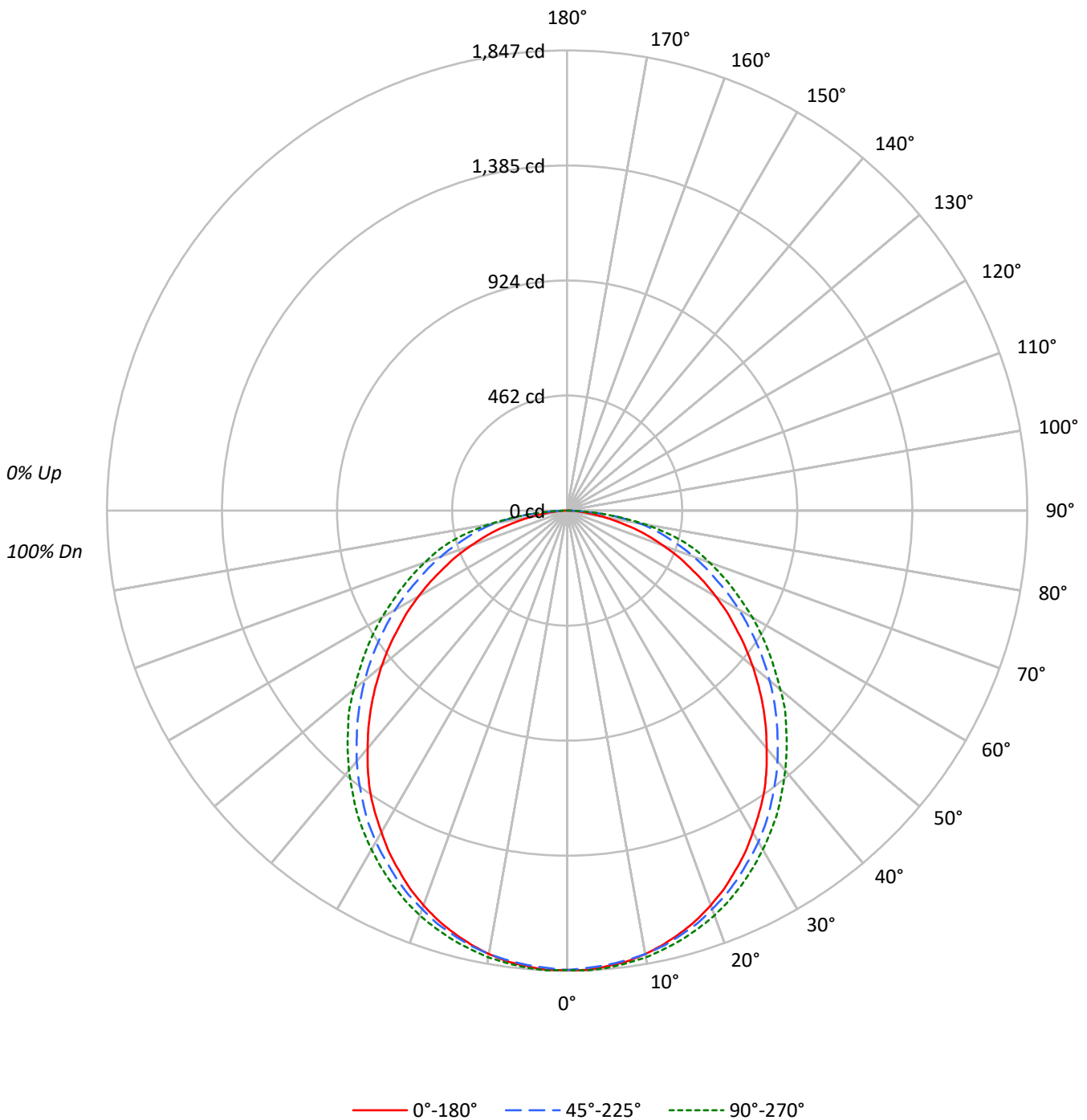
Lumens per Lamp: N/A
Luminaire Lumens: 5249.3 lumens
Efficiency: N/A
Efficacy: 135.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.7
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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2481	2481	2481
5°	2479	2473	2488
10°	2469	2469	2488
15°	2446	2457	2483
20°	2414	2438	2476
25°	2369	2413	2461
30°	2316	2386	2440
35°	2265	2347	2421
40°	2188	2308	2393
45°	2116	2262	2367
50°	2035	2220	2338
55°	1944	2179	2316
60°	1853	2145	2311
65°	1736	2107	2325
70°	1607	2119	2388
75°	1439	2158	2522
80°	1163	2287	2468
85°	875	2008	1956



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.6	3.3
10°-20°	498.8	9.5
20°-30°	749.9	14.3
30°-40°	893.2	17.0
40°-50°	914.2	17.4
50°-60°	823.0	15.7
60°-70°	646.3	12.3
70°-80°	419.5	8.0
80°-90°	129.7	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°	1423.3	27.1
0°-40°	2316.5	44.1
0°-60°	4053.7	77.2
0°-90°	5249.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5249.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1844	1844	1844	1844	1844	
5°	1836	1839	1831	1841	1842	174
15°	1756	1761	1764	1779	1782	495
25°	1596	1609	1626	1652	1657	735
35°	1379	1396	1429	1464	1474	860
45°	1112	1139	1189	1234	1244	857
55°	829	865	929	977	987	743
65°	545	587	662	717	730	543
75°	277	330	415	472	485	293
85°	57	105	130	127	127	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1844.1	1844.1	1844.1	1844.1	1844.1
2.5°	1845.8	1845.8	1837.4	1845.8	1847.4
5°	1835.8	1839.1	1830.8	1840.8	1842.4
7.5°	1825.8	1825.8	1820.8	1830.8	1832.4
10°	1807.4	1809.1	1807.4	1819.1	1820.8
12.5°	1784.1	1787.4	1789.1	1800.8	1802.4
15°	1755.7	1760.7	1764.1	1779.1	1782.4
17.5°	1724.1	1729.1	1737.4	1754.1	1757.4
20°	1685.7	1692.4	1702.4	1724.1	1729.1
22.5°	1644.0	1650.7	1667.4	1687.4	1695.7
25°	1595.7	1609.0	1625.7	1652.4	1657.4
27.5°	1547.3	1559.0	1580.7	1609.0	1615.7
30°	1490.6	1509.0	1535.6	1564.0	1570.7
32.5°	1435.6	1453.9	1485.6	1515.6	1524.0
35°	1378.9	1395.6	1428.9	1464.0	1474.0
37.5°	1313.9	1335.6	1372.2	1407.3	1417.3
40°	1245.5	1272.2	1313.9	1350.6	1362.2
42.5°	1180.5	1208.8	1250.5	1290.5	1303.9
45°	1112.1	1138.8	1188.8	1233.9	1243.9
47.5°	1042.1	1072.1	1125.5	1170.5	1187.2
50°	972.1	1003.8	1060.4	1107.1	1117.1
52.5°	902.0	935.4	995.4	1045.4	1050.4
55°	828.7	865.4	928.7	977.1	987.1
57.5°	762.0	793.7	862.0	912.1	923.7
60°	688.6	723.6	797.0	843.7	858.7
62.5°	618.6	655.3	732.0	778.7	792.0
65°	545.2	586.9	661.9	717.0	730.3
67.5°	481.9	521.9	601.9	655.3	668.6
70°	408.5	453.5	538.6	593.6	606.9
72.5°	345.1	391.8	476.9	530.2	550.2
75°	276.8	330.1	415.2	471.9	485.2
77.5°	210.1	271.8	358.5	401.8	401.8
80°	150.1	215.1	295.1	315.1	318.5
82.5°	98.4	161.7	218.4	216.8	216.8
85°	56.7	105.0	130.1	126.7	126.7
87.5°	21.7	43.4	46.7	46.7	45.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)