

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: P388918

Luminaire Tested: **24CZ2-65VHE-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: P388918
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65VHE-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5349.4 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

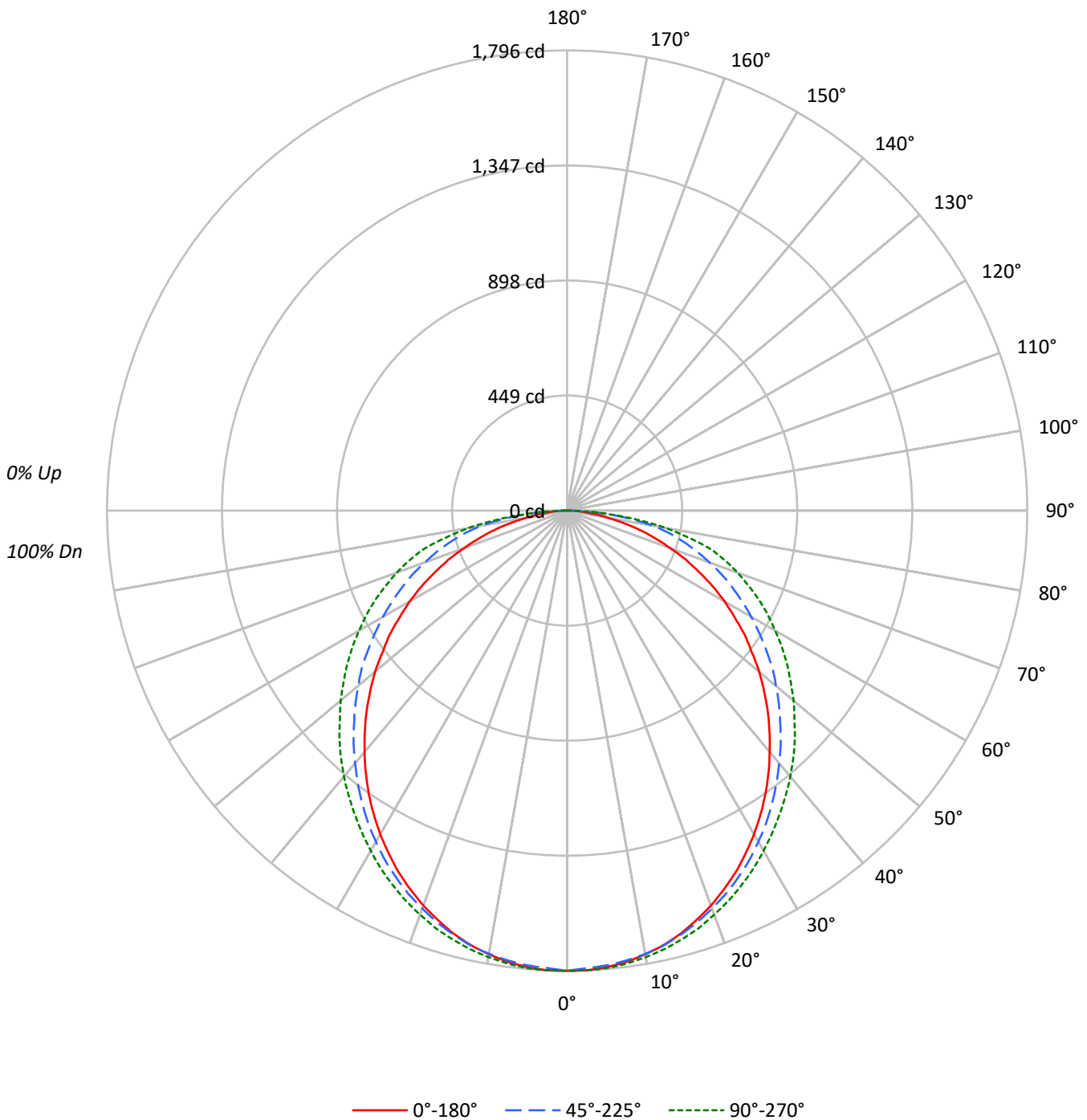
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2416	2416	2416
5°	2416	2407	2421
10°	2403	2400	2417
15°	2382	2387	2412
20°	2349	2367	2403
25°	2311	2346	2393
30°	2266	2319	2383
35°	2217	2290	2375
40°	2161	2261	2380
45°	2106	2239	2392
50°	2048	2227	2414
55°	1985	2224	2458
60°	1907	2234	2522
65°	1807	2268	2632
70°	1679	2325	2781
75°	1531	2441	3016
80°	1259	2628	3016
85°	965	2425	2590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.9	3.2
10°-20°	484.9	9.1
20°-30°	729.8	13.6
30°-40°	874.5	16.3
40°-50°	911.4	17.0
50°-60°	847.9	15.9
60°-70°	698.4	13.1
70°-80°	475.6	8.9
80°-90°	157.0	2.9
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°	1384.6	25.9
0°-40°	2259.1	42.2
0°-60°	4018.4	75.1
0°-90°	5349.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5349.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1796	1796	1796	1796	1796	
5°	1789	1789	1782	1791	1792	170
15°	1710	1712	1714	1730	1732	482
25°	1557	1564	1580	1607	1612	717
35°	1350	1366	1394	1432	1446	844
45°	1107	1130	1176	1235	1257	854
55°	846	875	948	1023	1048	754
65°	568	616	712	796	827	564
75°	295	361	470	554	580	311
85°	62	121	157	168	168	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1796.0	1796.0	1796.0	1796.0	1796.0
2.5°	1796.0	1796.0	1787.1	1796.0	1796.0
5°	1788.9	1788.9	1781.8	1790.7	1792.5
7.5°	1776.4	1778.2	1771.0	1781.8	1783.5
10°	1758.6	1760.3	1756.8	1767.5	1769.3
12.5°	1737.1	1738.9	1738.9	1751.4	1753.2
15°	1710.3	1712.1	1713.9	1730.0	1731.8
17.5°	1676.4	1681.8	1685.4	1705.0	1708.6
20°	1640.7	1646.1	1653.2	1674.6	1678.2
22.5°	1599.7	1606.8	1619.3	1642.5	1647.9
25°	1556.8	1563.9	1580.0	1606.8	1612.2
27.5°	1508.6	1519.3	1539.0	1567.5	1574.7
30°	1458.6	1469.3	1492.5	1522.9	1533.6
32.5°	1405.1	1419.3	1446.1	1480.0	1490.8
35°	1349.7	1365.8	1394.3	1431.8	1446.1
37.5°	1290.8	1308.6	1342.6	1383.6	1401.5
40°	1230.1	1251.5	1287.2	1335.4	1355.1
42.5°	1169.4	1189.0	1233.7	1285.4	1306.9
45°	1106.9	1130.1	1176.5	1235.4	1256.9
47.5°	1042.6	1065.8	1121.2	1183.7	1203.3
50°	978.4	1001.6	1064.1	1130.1	1153.3
52.5°	908.7	939.1	1010.5	1076.6	1099.8
55°	846.2	874.8	948.0	1023.0	1048.0
57.5°	774.8	808.8	889.1	967.6	994.4
60°	708.8	744.5	830.2	910.5	937.3
62.5°	640.9	680.2	771.3	853.4	883.7
65°	567.7	615.9	712.3	796.3	826.6
67.5°	501.7	551.7	653.4	739.1	765.9
70°	426.7	487.4	590.9	676.6	707.0
72.5°	362.4	423.1	532.0	615.9	646.3
75°	294.6	360.6	469.5	553.5	580.2
77.5°	226.7	299.9	408.8	473.1	482.0
80°	162.5	239.2	339.2	376.7	389.2
82.5°	114.3	183.9	249.9	274.9	282.1
85°	62.5	121.4	157.1	167.8	167.8
87.5°	26.8	51.8	62.5	64.3	66.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)