

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: P388223

Luminaire Tested: **22CZ2-24VHE-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: P388223
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

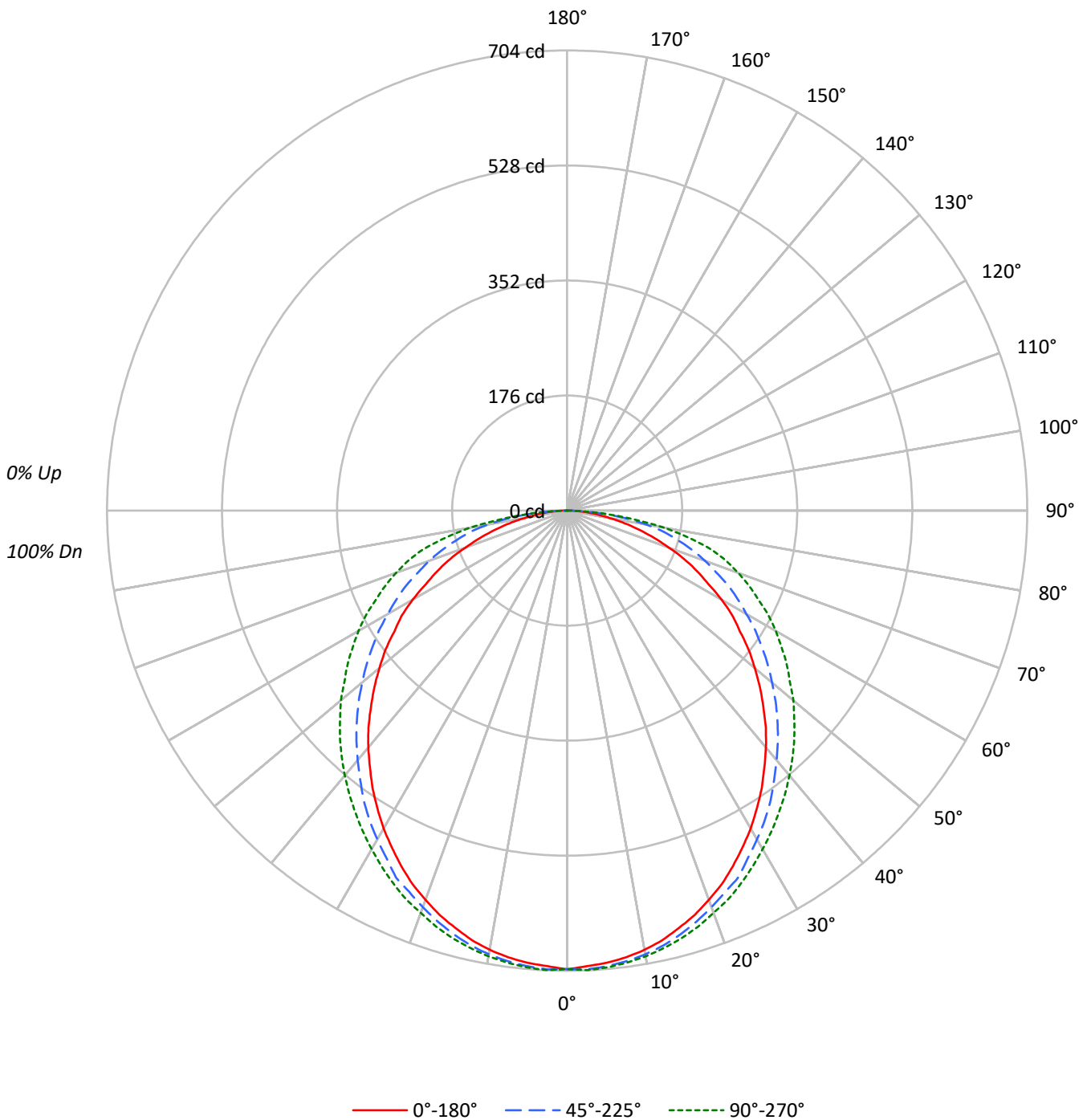
Lumens per Lamp: N/A
Luminaire Lumens: 2063.5 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 17.5
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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1888	1888	1888
5°	1876	1890	1895
10°	1864	1884	1892
15°	1841	1870	1887
20°	1814	1849	1875
25°	1782	1839	1869
30°	1745	1805	1858
35°	1705	1781	1855
40°	1662	1751	1858
45°	1615	1731	1870
50°	1569	1713	1891
55°	1515	1705	1924
60°	1470	1705	1984
65°	1396	1733	2056
70°	1302	1766	2189
75°	1193	1827	2364
80°	1038	1905	2329
85°	908	1692	1849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	3.2
10°-20°	189.0	9.2
20°-30°	283.7	13.7
30°-40°	339.0	16.4
40°-50°	352.5	17.1
50°-60°	326.7	15.8
60°-70°	268.0	13.0
70°-80°	181.2	8.8
80°-90°	56.9	2.8
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°	539.1	26.1
0°-40°	878.1	42.6
0°-60°	1557.4	75.5
0°-90°	2063.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2063.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	694	696	700	701	702	66
15°	661	664	671	675	677	186
25°	600	605	619	626	630	276
35°	519	526	542	558	565	324
45°	424	433	455	481	491	328
55°	323	333	364	396	410	290
65°	219	232	272	308	323	217
75°	115	134	176	211	227	122
85°	29	41	55	61	60	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	701.6	701.6	701.6	701.6	701.6
2.5°	697.6	699.6	702.6	703.7	703.7
5°	694.5	695.5	699.6	700.6	701.6
7.5°	689.4	691.5	695.5	696.6	697.6
10°	682.3	684.4	689.4	691.5	692.5
12.5°	673.2	675.2	681.3	684.4	685.4
15°	661.0	664.1	671.2	675.2	677.3
17.5°	648.8	651.9	659.0	665.1	667.1
20°	633.6	640.7	645.8	653.9	654.9
22.5°	618.4	622.4	631.6	639.7	643.8
25°	600.1	605.2	619.4	626.5	629.5
27.5°	580.8	587.9	599.1	610.2	614.3
30°	561.5	566.6	580.8	594.0	598.1
32.5°	540.2	547.3	562.5	575.7	581.8
35°	518.9	526.0	542.2	558.5	564.6
37.5°	495.5	503.6	519.9	539.2	547.3
40°	473.2	479.3	498.6	521.9	529.0
42.5°	449.8	456.9	477.2	502.6	510.7
45°	424.4	432.6	454.9	481.3	491.4
47.5°	400.1	408.2	432.6	459.0	471.1
50°	374.7	384.8	409.2	439.7	451.8
52.5°	350.3	359.4	386.9	418.3	429.5
55°	322.9	333.0	363.5	396.0	410.2
57.5°	300.6	307.7	341.2	374.7	388.9
60°	273.1	282.3	316.8	352.3	368.6
62.5°	243.7	258.9	294.5	331.0	347.3
65°	219.3	231.5	272.1	307.7	322.9
67.5°	193.9	207.1	246.7	284.3	301.6
70°	165.5	182.8	224.4	262.0	278.2
72.5°	140.1	158.4	201.0	237.6	254.9
75°	114.7	134.0	175.7	211.2	227.4
77.5°	90.4	111.7	152.3	179.7	189.9
80°	67.0	87.3	122.9	142.2	150.3
82.5°	46.7	64.0	90.4	100.5	102.6
85°	29.4	40.6	54.8	60.9	59.9
87.5°	13.2	16.2	20.3	22.3	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)