

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: P389021

Luminaire Tested: **24CZ2-85VHE-UNV-L940-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: P389021
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: 24CZ2-85VHE-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

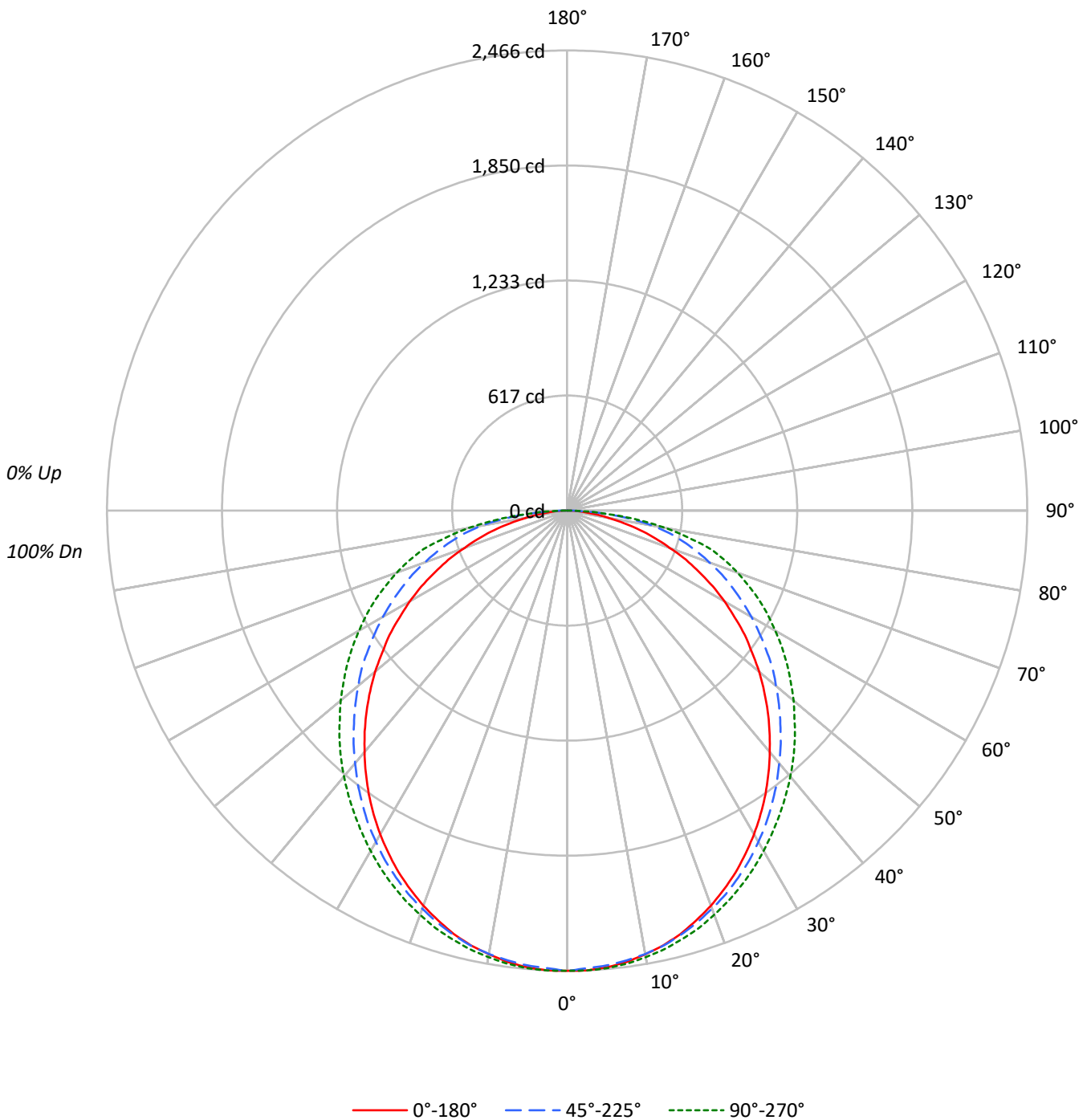
Lumens per Lamp: N/A
Luminaire Lumens: 7346.4 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 57.9
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°	3319	3319	3319
5°	3318	3305	3325
10°	3299	3296	3320
15°	3272	3279	3313
20°	3226	3251	3300
25°	3174	3221	3287
30°	3112	3184	3272
35°	3045	3145	3262
40°	2967	3105	3269
45°	2892	3074	3284
50°	2812	3059	3315
55°	2726	3054	3376
60°	2619	3068	3464
65°	2482	3115	3614
70°	2305	3193	3819
75°	2103	3352	4142
80°	1729	3609	4142
85°	1325	3331	3558



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.3	3.2
10°-20°	666.0	9.1
20°-30°	1002.2	13.6
30°-40°	1201.0	16.3
40°-50°	1251.6	17.0
50°-60°	1164.5	15.9
60°-70°	959.1	13.1
70°-80°	653.2	8.9
80°-90°	215.6	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°	1901.4	25.9
0°-40°	3102.5	42.2
0°-60°	5518.5	75.1
0°-90°	7346.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7346.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2466	2466	2466	2466	2466	
5°	2457	2457	2447	2459	2462	233
15°	2349	2351	2354	2376	2378	662
25°	2138	2148	2170	2207	2214	984
35°	1854	1876	1915	1966	1986	1159
45°	1520	1552	1616	1697	1726	1172
55°	1162	1201	1302	1405	1439	1036
65°	780	846	978	1094	1135	774
75°	404	495	645	760	797	427
85°	86	167	216	230	230	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2466.5	2466.5	2466.5	2466.5	2466.5
2.5°	2466.5	2466.5	2454.3	2466.5	2466.5
5°	2456.7	2456.7	2446.9	2459.2	2461.6
7.5°	2439.6	2442.0	2432.2	2446.9	2449.4
10°	2415.0	2417.5	2412.6	2427.3	2429.8
12.5°	2385.6	2388.1	2388.1	2405.2	2407.7
15°	2348.8	2351.3	2353.7	2375.8	2378.3
17.5°	2302.3	2309.6	2314.5	2341.5	2346.4
20°	2253.2	2260.6	2270.4	2299.8	2304.7
22.5°	2196.8	2206.6	2223.8	2255.7	2263.0
25°	2138.0	2147.8	2169.9	2206.6	2214.0
27.5°	2071.8	2086.5	2113.5	2152.7	2162.5
30°	2003.1	2017.8	2049.7	2091.4	2106.1
32.5°	1929.6	1949.2	1986.0	2032.6	2047.3
35°	1853.6	1875.6	1914.9	1966.4	1986.0
37.5°	1772.7	1797.2	1843.8	1900.2	1924.7
40°	1689.3	1718.7	1767.8	1834.0	1860.9
42.5°	1605.9	1632.9	1694.2	1765.3	1794.7
45°	1520.1	1552.0	1615.7	1696.7	1726.1
47.5°	1431.9	1463.7	1539.7	1625.6	1652.5
50°	1343.6	1375.5	1461.3	1552.0	1583.9
52.5°	1248.0	1289.7	1387.7	1478.4	1510.3
55°	1162.2	1201.4	1301.9	1404.9	1439.2
57.5°	1064.1	1110.7	1221.0	1328.9	1365.7
60°	973.4	1022.4	1140.1	1250.4	1287.2
62.5°	880.2	934.1	1059.2	1172.0	1213.6
65°	779.7	845.9	978.3	1093.5	1135.2
67.5°	689.0	757.6	897.4	1015.1	1051.8
70°	586.0	669.3	811.6	929.2	970.9
72.5°	497.7	581.1	730.6	845.9	887.6
75°	404.5	495.3	644.8	760.1	796.8
77.5°	311.4	411.9	561.5	649.7	662.0
80°	223.1	328.5	465.8	517.3	534.5
82.5°	156.9	252.5	343.3	377.6	387.4
85°	85.8	166.7	215.8	230.5	230.5
87.5°	36.8	71.1	85.8	88.3	90.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)