

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: P388229

Luminaire Tested: **22CZ2-24VHE-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: P388229
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-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

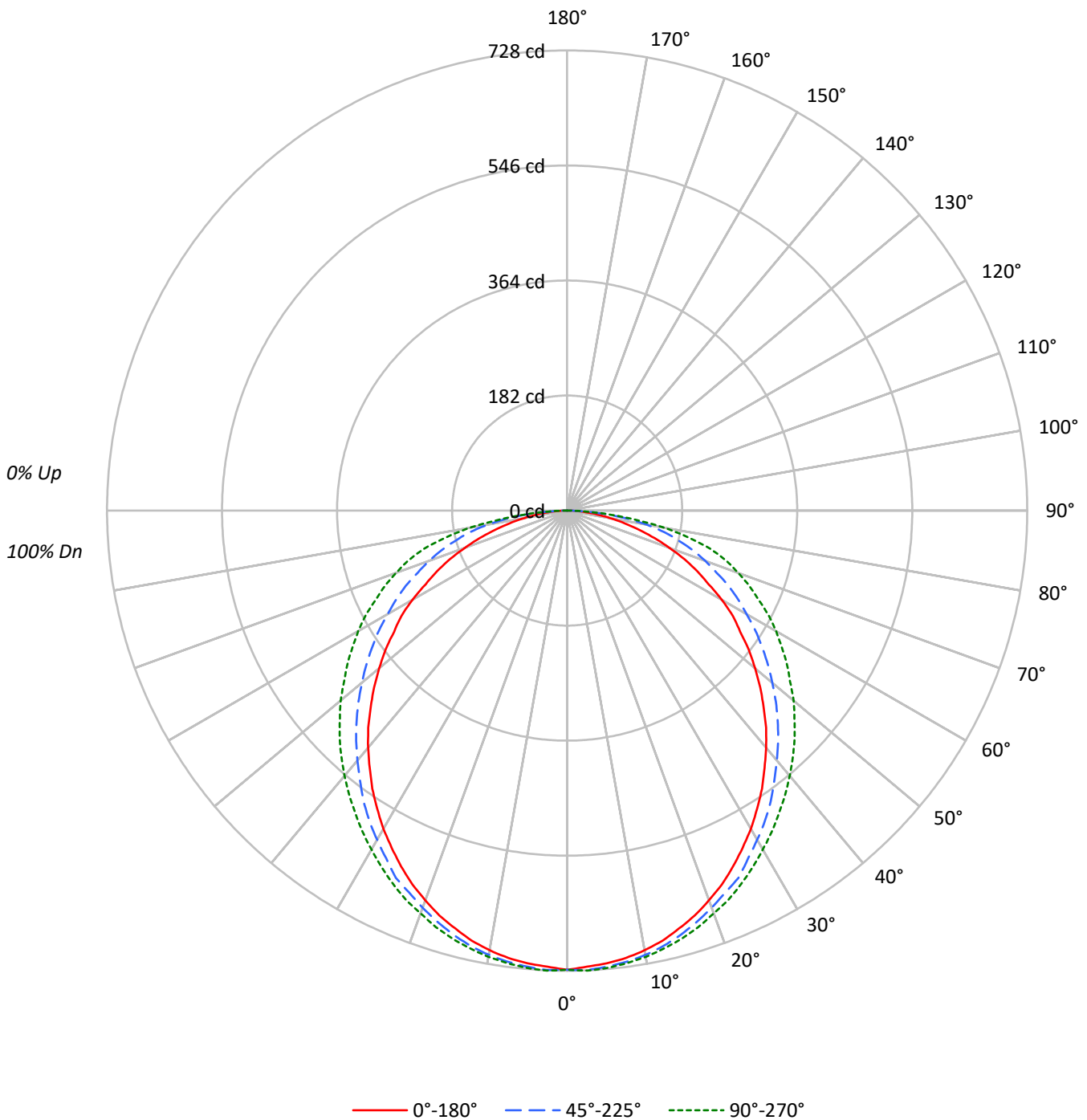
Lumens per Lamp: N/A
Luminaire Lumens: 2136.4 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1955	1955	1955
5°	1942	1957	1962
10°	1930	1950	1959
15°	1907	1936	1953
20°	1879	1915	1942
25°	1845	1904	1935
30°	1806	1868	1924
35°	1765	1844	1920
40°	1721	1813	1924
45°	1672	1792	1936
50°	1624	1774	1958
55°	1568	1765	1993
60°	1522	1765	2054
65°	1446	1794	2129
70°	1349	1828	2266
75°	1235	1891	2449
80°	1075	1971	2411
85°	942	1754	1914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	3.2
10°-20°	195.7	9.2
20°-30°	293.7	13.7
30°-40°	351.0	16.4
40°-50°	365.0	17.1
50°-60°	338.3	15.8
60°-70°	277.5	13.0
70°-80°	187.6	8.8
80°-90°	59.0	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°	558.1	26.1
0°-40°	909.1	42.6
0°-60°	1612.4	75.5
0°-90°	2136.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2136.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	726	726	726	726	726	
5°	719	720	724	725	726	68
15°	684	688	695	699	701	193
25°	621	626	641	649	652	286
35°	537	544	561	578	584	336
45°	439	448	471	498	509	339
55°	334	345	376	410	425	300
65°	227	240	282	318	334	224
75°	119	139	182	219	236	126
85°	30	42	57	63	62	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	726.4	726.4	726.4	726.4	726.4
2.5°	722.2	724.3	727.5	728.5	728.5
5°	719.1	720.1	724.3	725.4	726.4
7.5°	713.8	715.9	720.1	721.2	722.2
10°	706.4	708.5	713.8	715.9	717.0
12.5°	697.0	699.1	705.4	708.5	709.6
15°	684.4	687.5	694.9	699.1	701.2
17.5°	671.8	674.9	682.3	688.6	690.7
20°	656.0	663.3	668.6	677.0	678.1
22.5°	640.2	644.4	653.9	662.3	666.5
25°	621.3	626.5	641.3	648.6	651.8
27.5°	601.3	608.7	620.2	631.8	636.0
30°	581.3	586.6	601.3	615.0	619.2
32.5°	559.3	566.6	582.4	596.1	602.4
35°	537.2	544.5	561.4	578.2	584.5
37.5°	513.0	521.4	538.2	558.2	566.6
40°	489.9	496.2	516.2	540.3	547.7
42.5°	465.7	473.1	494.1	520.4	528.8
45°	439.4	447.8	471.0	498.3	508.8
47.5°	414.2	422.6	447.8	475.2	487.8
50°	387.9	398.4	423.7	455.2	467.8
52.5°	362.7	372.1	400.5	433.1	444.7
55°	334.3	344.8	376.3	410.0	424.7
57.5°	311.2	318.5	353.2	387.9	402.6
60°	282.8	292.2	328.0	364.8	381.6
62.5°	252.3	268.1	304.9	342.7	359.5
65°	227.1	239.7	281.7	318.5	334.3
67.5°	200.8	214.5	255.5	294.4	312.2
70°	171.4	189.2	232.3	271.2	288.0
72.5°	145.1	164.0	208.1	246.0	263.9
75°	118.8	138.8	181.9	218.7	235.5
77.5°	93.6	115.6	157.7	186.1	196.6
80°	69.4	90.4	127.2	147.2	155.6
82.5°	48.4	66.2	93.6	104.1	106.2
85°	30.5	42.1	56.8	63.1	62.0
87.5°	13.7	16.8	21.0	23.1	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)