

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: P390896

Luminaire Tested: **24CZ2-100VHE-HRP-UNV-L950-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: P390896
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-HRP-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7843.4 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

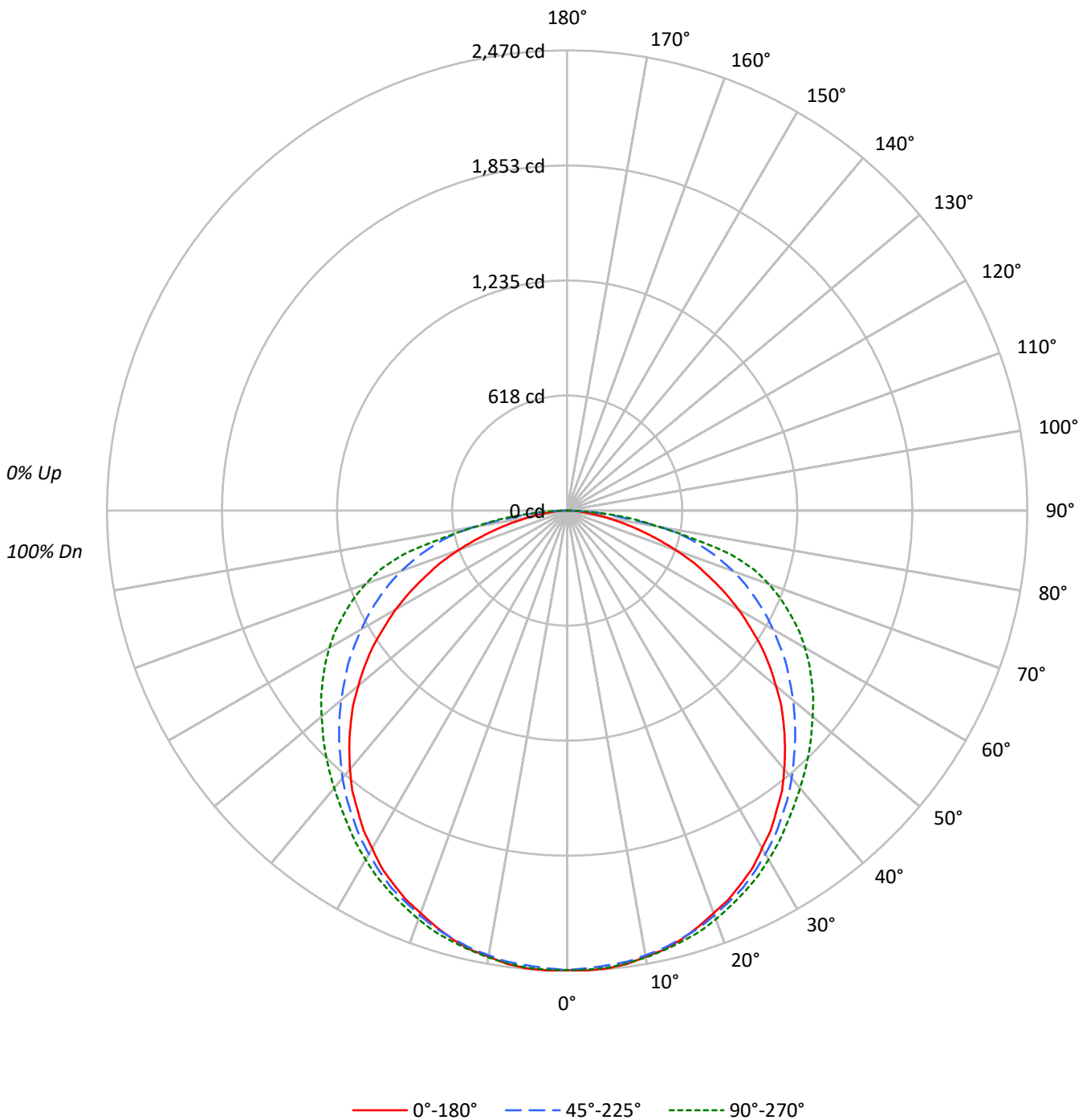
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3319	3319	3319
5°	3331	3310	3326
10°	3322	3311	3327
15°	3316	3311	3333
20°	3292	3309	3342
25°	3281	3315	3350
30°	3252	3306	3361
35°	3221	3297	3374
40°	3184	3294	3417
45°	3131	3294	3494
50°	3062	3314	3599
55°	2984	3368	3760
60°	2858	3434	3968
65°	2675	3555	4211
70°	2434	3719	4530
75°	2063	3923	4733
80°	1628	3949	3828
85°	1201	3003	3364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.0	3.0
10°-20°	673.4	8.6
20°-30°	1029.7	13.1
30°-40°	1258.8	16.0
40°-50°	1341.7	17.1
50°-60°	1282.8	16.4
60°-70°	1086.7	13.9
70°-80°	730.3	9.3
80°-90°	206.0	2.6
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°	1937.1	24.7
0°-40°	3195.9	40.7
0°-60°	5820.4	74.2
0°-90°	7843.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7843.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2466	2466	2466	2466	2466	
5°	2466	2463	2451	2463	2463	234
15°	2381	2381	2377	2396	2393	671
25°	2210	2218	2233	2253	2256	1018
35°	1961	1976	2008	2046	2054	1228
45°	1646	1673	1731	1805	1836	1269
55°	1272	1319	1436	1548	1603	1133
65°	840	926	1117	1264	1323	834
75°	397	541	755	883	910	425
85°	78	160	194	210	218	96
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°	2470.4	2470.4	2458.7	2466.5	2466.5
5°	2466.5	2462.6	2451.0	2462.6	2462.6
7.5°	2454.9	2451.0	2443.2	2454.9	2451.0
10°	2431.5	2431.5	2423.7	2435.4	2435.4
12.5°	2412.1	2408.2	2404.3	2419.8	2415.9
15°	2380.9	2380.9	2377.0	2396.5	2392.6
17.5°	2342.0	2345.9	2349.8	2365.4	2369.3
20°	2299.2	2307.0	2310.9	2334.3	2334.3
22.5°	2260.3	2264.2	2272.0	2295.3	2295.3
25°	2209.8	2217.5	2233.1	2252.6	2256.4
27.5°	2159.2	2163.1	2182.5	2209.8	2213.6
30°	2093.0	2104.7	2128.1	2159.2	2163.1
32.5°	2034.7	2046.4	2073.6	2104.7	2112.5
35°	1960.8	1976.3	2007.5	2046.4	2054.1
37.5°	1894.6	1906.3	1945.2	1988.0	1999.7
40°	1812.9	1836.3	1875.2	1925.8	1945.2
42.5°	1731.2	1754.6	1801.3	1867.4	1890.7
45°	1645.6	1672.9	1731.2	1805.2	1836.3
47.5°	1560.1	1591.2	1657.3	1742.9	1777.9
50°	1462.8	1501.7	1583.4	1680.7	1719.6
52.5°	1369.4	1416.1	1505.6	1614.5	1665.1
55°	1272.2	1318.9	1435.6	1548.4	1602.9
57.5°	1163.2	1225.5	1353.9	1482.2	1540.6
60°	1062.1	1120.4	1276.1	1416.1	1474.5
62.5°	953.2	1031.0	1198.2	1346.1	1404.4
65°	840.3	925.9	1116.6	1264.4	1322.7
67.5°	739.2	832.5	1034.9	1182.7	1241.0
70°	618.6	735.3	945.4	1093.2	1151.6
72.5°	505.8	634.1	852.0	995.9	1050.4
75°	396.8	540.8	754.7	883.1	910.4
77.5°	295.7	447.4	653.6	708.1	688.6
80°	210.1	357.9	509.6	482.4	494.1
82.5°	136.2	272.3	315.1	357.9	369.6
85°	77.8	159.5	194.5	210.1	217.9
87.5°	35.0	58.4	77.8	77.8	73.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)