

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: P389936

Luminaire Tested: **24CZ2-80VHE-S-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: P389936
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-S-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7743.6 lumens
Efficiency: N/A
Efficacy: 143.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

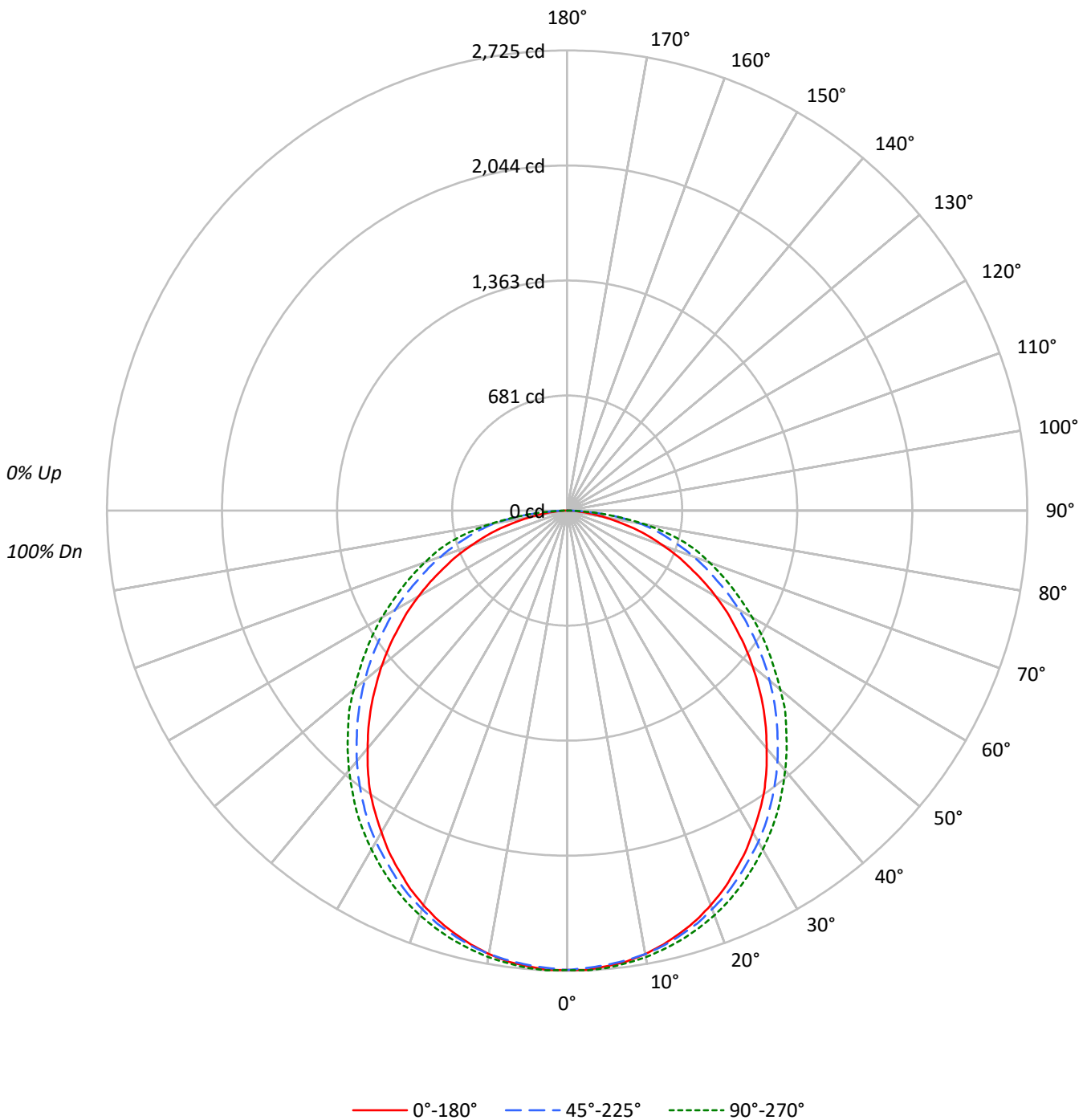
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3660	3660	3660
5°	3658	3648	3671
10°	3643	3643	3670
15°	3608	3625	3663
20°	3561	3596	3652
25°	3495	3560	3630
30°	3416	3519	3600
35°	3341	3462	3571
40°	3227	3404	3530
45°	3122	3337	3491
50°	3002	3274	3450
55°	2867	3214	3416
60°	2733	3164	3409
65°	2561	3109	3430
70°	2371	3126	3522
75°	2123	3184	3721
80°	1715	3374	3640
85°	1291	2963	2885



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.5	3.3
10°-20°	735.9	9.5
20°-30°	1106.2	14.3
30°-40°	1317.7	17.0
40°-50°	1348.6	17.4
50°-60°	1214.1	15.7
60°-70°	953.5	12.3
70°-80°	618.8	8.0
80°-90°	191.4	2.5
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°	2099.6	27.1
0°-40°	3417.3	44.1
0°-60°	5979.9	77.2
0°-90°	7743.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7743.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2720	2720	2720	2720	2720	
5°	2708	2713	2701	2716	2718	257
15°	2590	2597	2602	2624	2629	730
25°	2354	2374	2398	2438	2445	1084
35°	2034	2059	2108	2160	2174	1269
45°	1641	1680	1754	1820	1835	1265
55°	1222	1277	1370	1441	1456	1096
65°	804	866	976	1058	1077	801
75°	408	487	612	696	716	432
85°	84	155	192	187	187	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2720.4	2720.4	2720.4	2720.4	2720.4
2.5°	2722.8	2722.8	2710.5	2722.8	2725.3
5°	2708.1	2713.0	2700.7	2715.5	2717.9
7.5°	2693.3	2693.3	2685.9	2700.7	2703.2
10°	2666.3	2668.7	2666.3	2683.5	2685.9
12.5°	2631.8	2636.7	2639.2	2656.4	2658.9
15°	2590.0	2597.4	2602.3	2624.5	2629.4
17.5°	2543.3	2550.7	2563.0	2587.6	2592.5
20°	2486.7	2496.5	2511.3	2543.3	2550.7
22.5°	2425.2	2435.1	2459.7	2489.2	2501.5
25°	2353.9	2373.6	2398.2	2437.5	2444.9
27.5°	2282.6	2299.8	2331.8	2373.6	2383.4
30°	2198.9	2226.0	2265.3	2307.2	2317.0
32.5°	2117.8	2144.8	2191.6	2235.8	2248.1
35°	2034.1	2058.7	2107.9	2159.6	2174.3
37.5°	1938.2	1970.2	2024.3	2075.9	2090.7
40°	1837.4	1876.7	1938.2	1992.3	2009.5
42.5°	1741.4	1783.2	1844.7	1903.8	1923.4
45°	1640.6	1679.9	1753.7	1820.1	1834.9
47.5°	1537.3	1581.6	1660.3	1726.7	1751.3
50°	1434.0	1480.7	1564.3	1633.2	1648.0
52.5°	1330.7	1379.9	1468.4	1542.2	1549.6
55°	1222.4	1276.6	1370.0	1441.4	1456.1
57.5°	1124.1	1170.8	1271.6	1345.4	1362.6
60°	1015.8	1067.5	1175.7	1244.6	1266.7
62.5°	912.5	966.6	1079.8	1148.7	1168.3
65°	804.3	865.8	976.5	1057.7	1077.3
67.5°	710.8	769.9	887.9	966.6	986.3
70°	602.6	669.0	794.5	875.6	895.3
72.5°	509.1	578.0	703.5	782.2	811.7
75°	408.3	487.0	612.5	696.1	715.8
77.5°	309.9	400.9	528.8	592.8	592.8
80°	221.4	317.3	435.4	464.9	469.8
82.5°	145.1	238.6	322.2	319.8	319.8
85°	83.6	155.0	191.9	186.9	186.9
87.5°	32.0	64.0	68.9	68.9	66.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)