

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: P389624

Luminaire Tested: **24CZ2-150VHE-S-UNV-L950-CD2-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: P389624
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: 24CZ2-150VHE-S-UNV-L950-CD2-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: 14296.3 lumens
Efficiency: N/A
Efficacy: 137.2 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

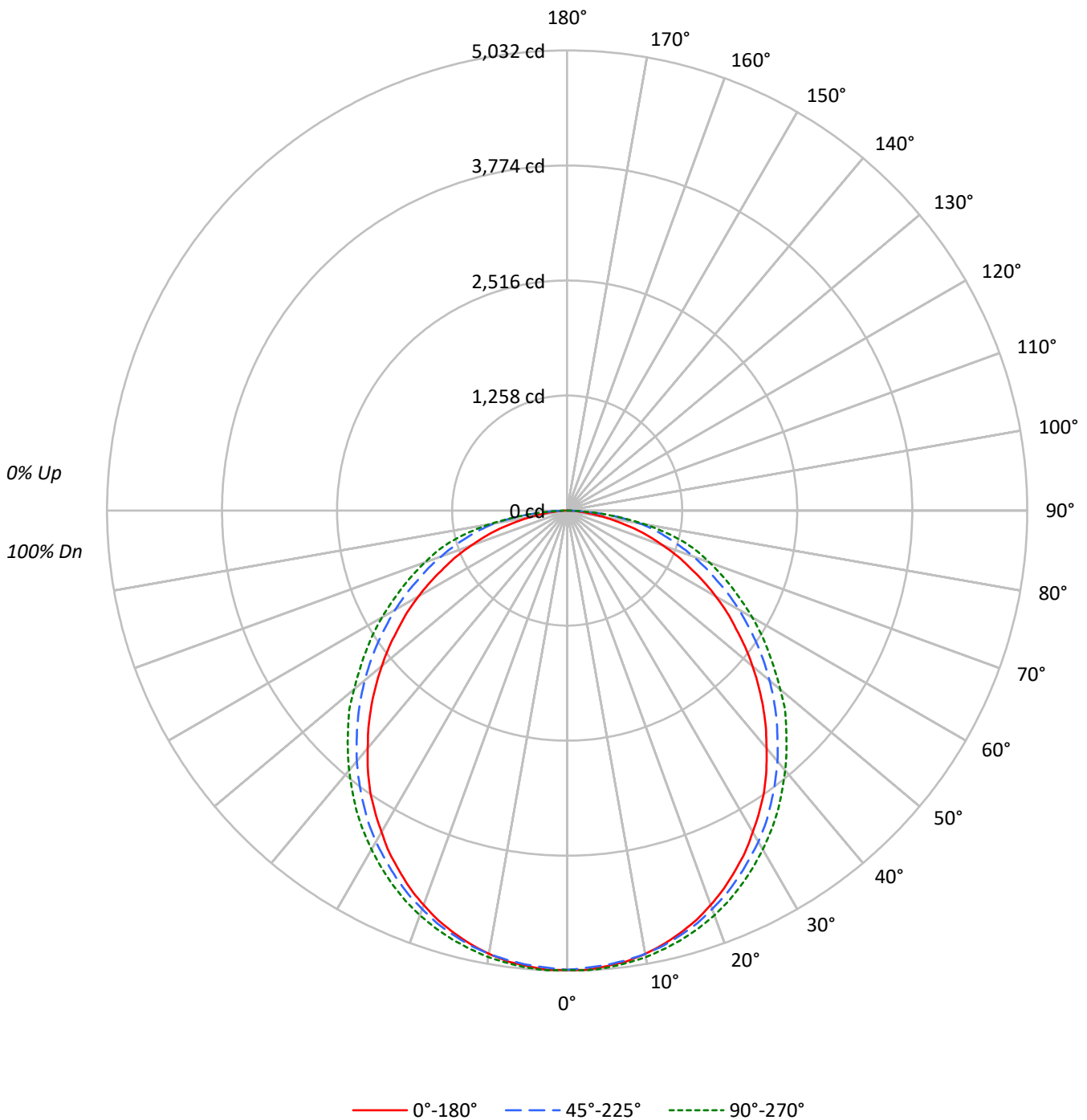
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6758	6758	6758
5°	6753	6734	6777
10°	6725	6725	6775
15°	6661	6692	6762
20°	6574	6639	6743
25°	6452	6573	6701
30°	6307	6498	6646
35°	6168	6392	6594
40°	5958	6285	6516
45°	5763	6161	6446
50°	5542	6045	6369
55°	5294	5933	6306
60°	5047	5841	6293
65°	4727	5740	6332
70°	4377	5770	6502
75°	3919	5878	6869
80°	3167	6228	6720
85°	2384	5468	5328



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.5	3.3
10°-20°	1358.6	9.5
20°-30°	2042.3	14.3
30°-40°	2432.7	17.0
40°-50°	2489.7	17.4
50°-60°	2241.5	15.7
60°-70°	1760.3	12.3
70°-80°	1142.4	8.0
80°-90°	353.3	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°	3876.3	27.1
0°-40°	6309.0	44.1
0°-60°	11040.2	77.2
0°-90°	14296.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14296.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5022	5022	5022	5022	5022	
5°	5000	5009	4986	5013	5018	475
15°	4782	4795	4804	4845	4854	1348
25°	4346	4382	4428	4500	4514	2002
35°	3755	3801	3892	3987	4014	2343
45°	3029	3102	3238	3360	3388	2335
55°	2257	2357	2529	2661	2688	2023
65°	1485	1598	1803	1953	1989	1478
75°	754	899	1131	1285	1321	798
85°	154	286	354	345	345	186
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5022.4	5022.4	5022.4	5022.4	5022.4
2.5°	5026.9	5026.9	5004.2	5026.9	5031.5
5°	4999.7	5008.8	4986.1	5013.3	5017.8
7.5°	4972.4	4972.4	4958.8	4986.1	4990.6
10°	4922.5	4927.0	4922.5	4954.3	4958.8
12.5°	4858.9	4868.0	4872.5	4904.3	4908.9
15°	4781.7	4795.3	4804.4	4845.3	4854.4
17.5°	4695.4	4709.1	4731.8	4777.2	4786.2
20°	4591.0	4609.1	4636.4	4695.4	4709.1
22.5°	4477.5	4495.6	4541.0	4595.5	4618.2
25°	4345.8	4382.1	4427.5	4500.2	4513.8
27.5°	4214.1	4245.9	4304.9	4382.1	4400.3
30°	4059.7	4109.6	4182.3	4259.5	4277.7
32.5°	3909.8	3959.8	4046.1	4127.8	4150.5
35°	3755.4	3800.8	3891.7	3987.0	4014.3
37.5°	3578.3	3637.4	3737.3	3832.6	3859.9
40°	3392.2	3464.8	3578.3	3678.2	3710.0
42.5°	3215.1	3292.2	3405.8	3514.8	3551.1
45°	3028.9	3101.5	3237.8	3360.4	3387.6
47.5°	2838.1	2919.9	3065.2	3187.8	3233.2
50°	2647.4	2733.7	2888.1	3015.2	3042.5
52.5°	2456.7	2547.5	2711.0	2847.2	2860.9
55°	2256.9	2356.8	2529.4	2661.0	2688.3
57.5°	2075.3	2161.5	2347.7	2483.9	2515.7
60°	1875.4	1970.8	2170.6	2297.8	2338.6
62.5°	1684.7	1784.6	1993.5	2120.7	2157.0
65°	1484.9	1598.4	1802.8	1952.6	1989.0
67.5°	1312.4	1421.3	1639.3	1784.6	1821.0
70°	1112.6	1235.2	1466.8	1616.6	1652.9
72.5°	940.0	1067.1	1298.7	1444.0	1498.5
75°	753.8	899.1	1130.7	1285.1	1321.4
77.5°	572.2	740.2	976.3	1094.4	1094.4
80°	408.7	585.8	803.8	858.3	867.3
82.5°	267.9	440.5	594.9	590.3	590.3
85°	154.4	286.1	354.2	345.1	345.1
87.5°	59.0	118.1	127.1	127.1	122.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)