

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: P389615

Luminaire Tested: **24CZ2-150VHE-S-UNV-L930-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: P389615
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-L930-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

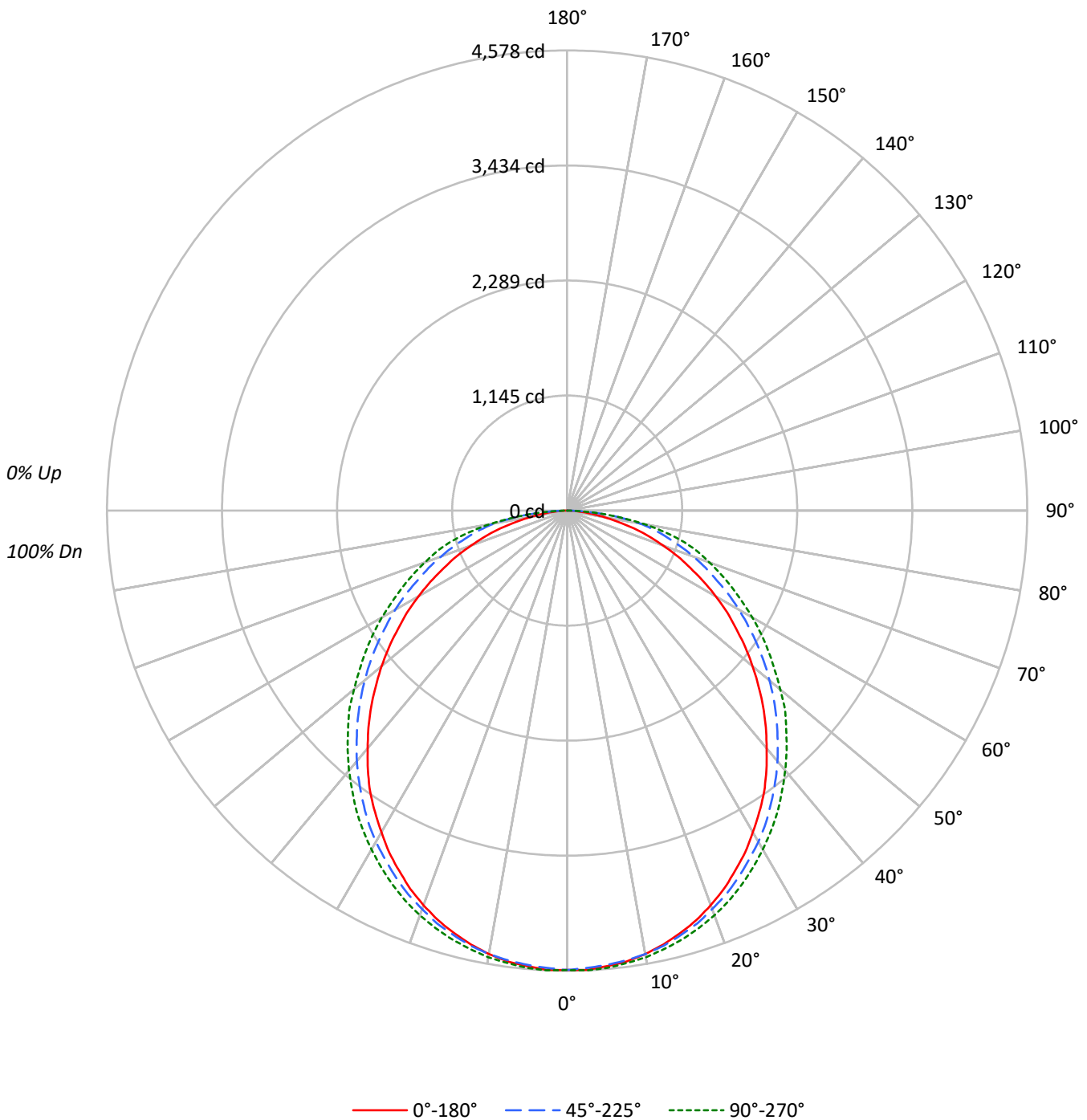
Lumens per Lamp: N/A
Luminaire Lumens: 13009.2 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	6149	6149	6149
5°	6145	6128	6167
10°	6120	6120	6165
15°	6061	6090	6153
20°	5982	6041	6136
25°	5871	5981	6098
30°	5739	5913	6048
35°	5613	5817	6000
40°	5422	5719	5930
45°	5245	5606	5866
50°	5043	5501	5795
55°	4818	5399	5739
60°	4592	5315	5727
65°	4302	5223	5762
70°	3983	5251	5917
75°	3566	5349	6251
80°	2882	5667	6116
85°	2169	4976	4847



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	432.7	3.3
10°-20°	1236.3	9.5
20°-30°	1858.4	14.3
30°-40°	2213.7	17.0
40°-50°	2265.6	17.4
50°-60°	2039.7	15.7
60°-70°	1601.8	12.3
70°-80°	1039.6	8.0
80°-90°	321.5	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°	3527.4	27.1
0°-40°	5741.0	44.1
0°-60°	10046.3	77.2
0°-90°	13009.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13009.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4570	4570	4570	4570	4570	
5°	4550	4558	4537	4562	4566	432
15°	4351	4364	4372	4409	4417	1227
25°	3954	3988	4029	4095	4107	1822
35°	3417	3459	3541	3628	3653	2132
45°	2756	2822	2946	3058	3083	2125
55°	2054	2145	2302	2422	2446	1841
65°	1351	1454	1640	1777	1810	1345
75°	686	818	1029	1169	1202	726
85°	140	260	322	314	314	170
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4570.2	4570.2	4570.2	4570.2	4570.2
2.5°	4574.3	4574.3	4553.7	4574.3	4578.5
5°	4549.6	4557.8	4537.2	4562.0	4566.1
7.5°	4524.8	4524.8	4512.4	4537.2	4541.3
10°	4479.3	4483.4	4479.3	4508.2	4512.4
12.5°	4421.5	4429.7	4433.9	4462.8	4466.9
15°	4351.2	4363.6	4371.9	4409.1	4417.3
17.5°	4272.7	4285.1	4305.8	4347.1	4355.3
20°	4177.7	4194.2	4219.0	4272.7	4285.1
22.5°	4074.4	4090.9	4132.2	4181.8	4202.5
25°	3954.5	3987.6	4028.9	4095.0	4107.4
27.5°	3834.7	3863.6	3917.3	3987.6	4004.1
30°	3694.2	3739.6	3805.8	3876.0	3892.5
32.5°	3557.8	3603.3	3681.8	3756.2	3776.8
35°	3417.3	3458.7	3541.3	3628.1	3652.9
37.5°	3256.2	3309.9	3400.8	3487.6	3512.4
40°	3086.8	3152.9	3256.2	3347.1	3376.0
42.5°	2925.6	2995.8	3099.2	3198.3	3231.4
45°	2756.2	2822.3	2946.3	3057.8	3082.6
47.5°	2582.6	2657.0	2789.2	2900.8	2942.1
50°	2409.1	2487.6	2628.1	2743.8	2768.6
52.5°	2235.5	2318.2	2466.9	2590.9	2603.3
55°	2053.7	2144.6	2301.6	2421.5	2446.3
57.5°	1888.4	1966.9	2136.3	2260.3	2289.2
60°	1706.6	1793.4	1975.2	2090.9	2128.1
62.5°	1533.0	1624.0	1814.0	1929.7	1962.8
65°	1351.2	1454.5	1640.5	1776.8	1809.9
67.5°	1194.2	1293.4	1491.7	1624.0	1657.0
70°	1012.4	1124.0	1334.7	1471.1	1504.1
72.5°	855.4	971.1	1181.8	1314.0	1363.6
75°	685.9	818.2	1028.9	1169.4	1202.5
77.5°	520.7	673.5	888.4	995.9	995.9
80°	371.9	533.1	731.4	781.0	789.3
82.5°	243.8	400.8	541.3	537.2	537.2
85°	140.5	260.3	322.3	314.0	314.0
87.5°	53.7	107.4	115.7	115.7	111.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)