

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: P389616

Luminaire Tested: **24CZ2-150VHE-S-UNV-L935-CD2-SDWPD1-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: P389616
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-L935-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13006.8 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

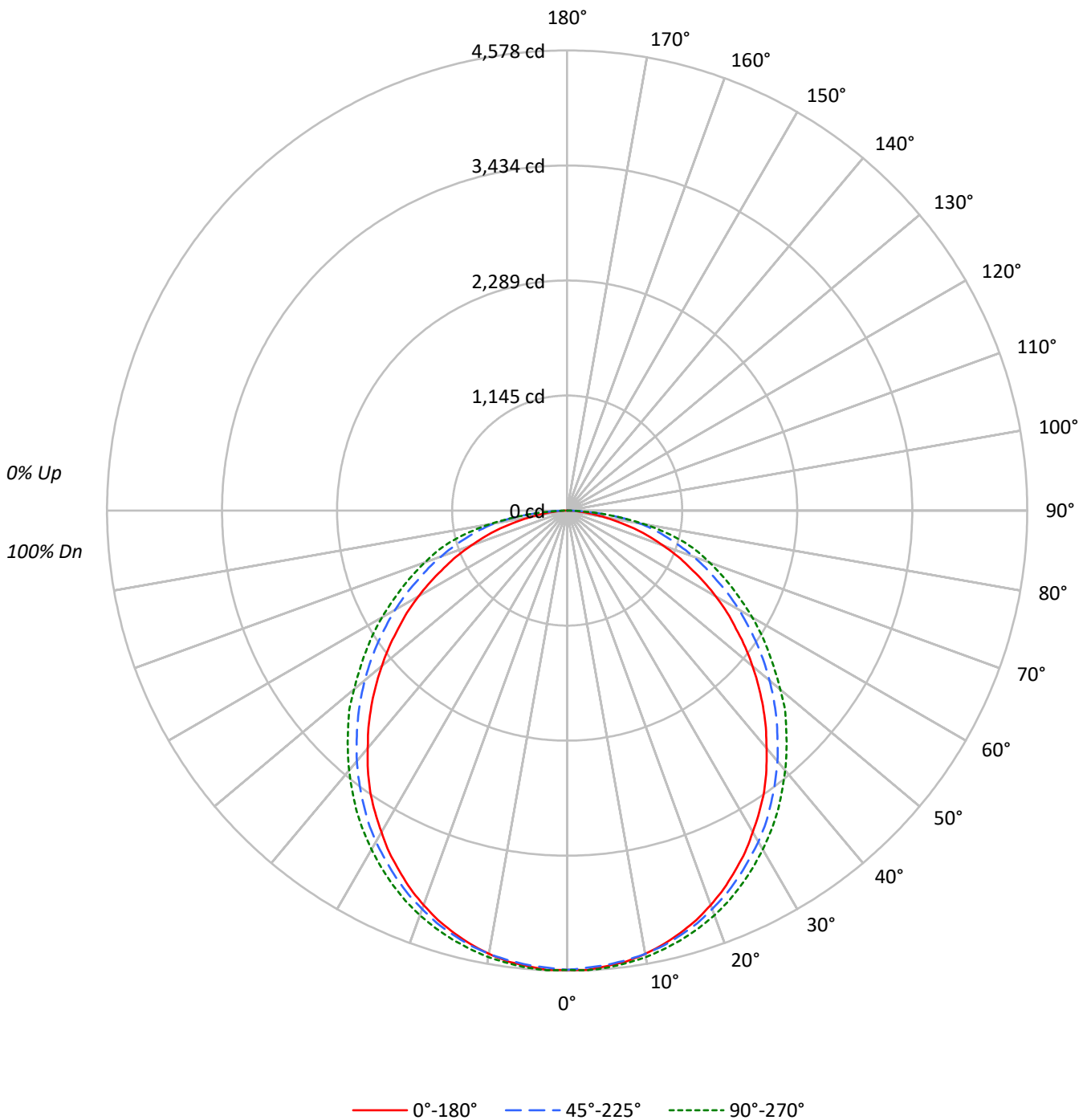
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6148	6148	6148
5°	6144	6127	6166
10°	6119	6119	6164
15°	6060	6089	6152
20°	5981	6040	6134
25°	5870	5980	6097
30°	5738	5912	6046
35°	5612	5816	5999
40°	5421	5718	5929
45°	5244	5605	5865
50°	5042	5500	5794
55°	4817	5398	5737
60°	4592	5314	5726
65°	4301	5222	5761
70°	3982	5250	5916
75°	3565	5348	6250
80°	2881	5666	6114
85°	2169	4976	4847



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	432.6	3.3
10°-20°	1236.1	9.5
20°-30°	1858.1	14.3
30°-40°	2213.3	17.0
40°-50°	2265.2	17.4
50°-60°	2039.3	15.7
60°-70°	1601.5	12.3
70°-80°	1039.4	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°	3526.7	27.1
0°-40°	5739.9	44.1
0°-60°	10044.4	77.2
0°-90°	13006.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13006.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4569	4569	4569	4569	4569	
5°	4549	4557	4536	4561	4565	432
15°	4350	4363	4371	4408	4416	1227
25°	3954	3987	4028	4094	4107	1821
35°	3417	3458	3541	3627	3652	2132
45°	2756	2822	2946	3057	3082	2125
55°	2053	2144	2301	2421	2446	1841
65°	1351	1454	1640	1776	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°	4569.4	4569.4	4569.4	4569.4	4569.4
2.5°	4573.5	4573.5	4552.8	4573.5	4577.6
5°	4548.7	4557.0	4536.3	4561.1	4565.2
7.5°	4523.9	4523.9	4511.5	4536.3	4540.5
10°	4478.5	4482.6	4478.5	4507.4	4511.5
12.5°	4420.6	4428.9	4433.0	4462.0	4466.1
15°	4350.4	4362.8	4371.1	4408.2	4416.5
17.5°	4271.9	4284.3	4305.0	4346.3	4354.5
20°	4176.9	4193.4	4218.2	4271.9	4284.3
22.5°	4073.6	4090.1	4131.4	4181.0	4201.7
25°	3953.8	3986.8	4028.2	4094.3	4106.7
27.5°	3834.0	3862.9	3916.6	3986.8	4003.4
30°	3693.5	3739.0	3805.1	3875.3	3891.8
32.5°	3557.2	3602.6	3681.1	3755.5	3776.1
35°	3416.7	3458.0	3540.6	3627.4	3652.2
37.5°	3255.6	3309.3	3400.2	3486.9	3511.7
40°	3086.2	3152.3	3255.6	3346.5	3375.4
42.5°	2925.1	2995.3	3098.6	3197.7	3230.8
45°	2755.7	2821.8	2945.7	3057.3	3082.1
47.5°	2582.2	2656.5	2788.7	2900.3	2941.6
50°	2408.6	2487.1	2627.6	2743.3	2768.1
52.5°	2235.1	2317.7	2466.5	2590.4	2602.8
55°	2053.3	2144.2	2301.2	2421.0	2445.8
57.5°	1888.1	1966.6	2136.0	2259.9	2288.8
60°	1706.3	1793.0	1974.8	2090.5	2127.7
62.5°	1532.8	1623.7	1813.7	1929.4	1962.4
65°	1351.0	1454.3	1640.2	1776.5	1809.6
67.5°	1194.0	1293.1	1491.5	1623.7	1656.7
70°	1012.2	1123.8	1334.5	1470.8	1503.8
72.5°	855.2	970.9	1181.6	1313.8	1363.4
75°	685.8	818.0	1028.7	1169.2	1202.2
77.5°	520.6	673.4	888.3	995.7	995.7
80°	371.8	533.0	731.3	780.8	789.1
82.5°	243.8	400.7	541.2	537.1	537.1
85°	140.5	260.3	322.3	314.0	314.0
87.5°	53.7	107.4	115.7	115.7	111.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)