

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: P389613

Luminaire Tested: **24CZ2-150VHE-S-UNV-L930-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: P389613
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-SDWPD1-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: 12692.8 lumens
Efficiency: N/A
Efficacy: 121.8 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

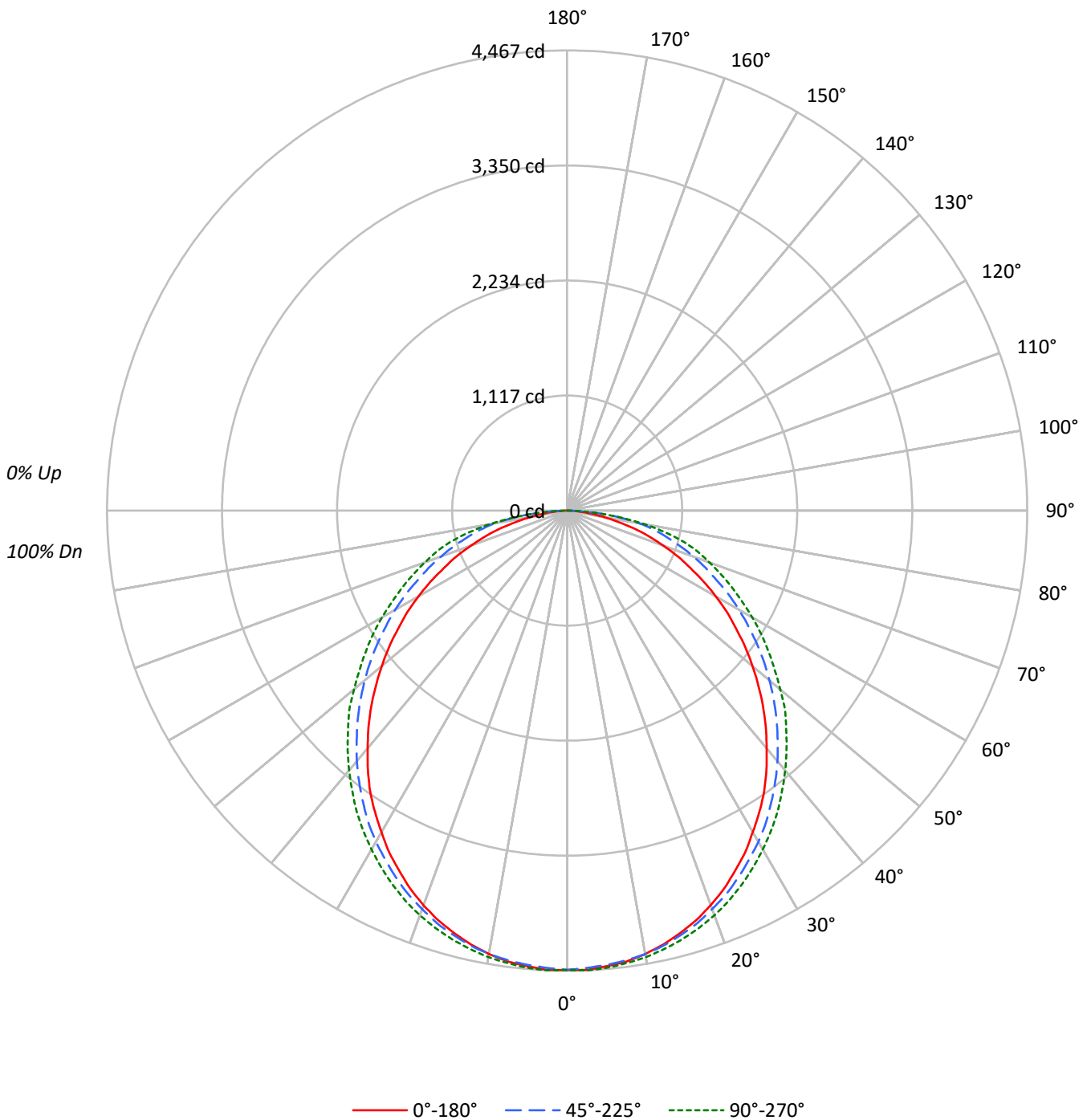
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6000	6000	6000
5°	5995	5979	6017
10°	5971	5971	6015
15°	5914	5942	6003
20°	5836	5894	5986
25°	5728	5836	5949
30°	5600	5769	5901
35°	5477	5675	5854
40°	5290	5580	5785
45°	5117	5470	5723
50°	4920	5367	5654
55°	4700	5268	5599
60°	4481	5186	5587
65°	4197	5096	5622
70°	3886	5123	5773
75°	3479	5219	6099
80°	2812	5529	5967
85°	2117	4855	4730



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	422.1	3.3
10°-20°	1206.2	9.5
20°-30°	1813.2	14.3
30°-40°	2159.8	17.0
40°-50°	2210.5	17.4
50°-60°	1990.1	15.7
60°-70°	1562.9	12.3
70°-80°	1014.3	8.0
80°-90°	313.7	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°	3441.6	27.1
0°-40°	5601.4	44.1
0°-60°	9802.0	77.2
0°-90°	12692.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12692.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4459	4459	4459	4459	4459	
5°	4439	4447	4427	4451	4455	422
15°	4245	4258	4266	4302	4310	1197
25°	3858	3891	3931	3995	4008	1777
35°	3334	3374	3455	3540	3564	2080
45°	2689	2754	2875	2984	3008	2073
55°	2004	2092	2246	2363	2387	1796
65°	1318	1419	1601	1734	1766	1312
75°	669	798	1004	1141	1173	708
85°	137	254	314	306	306	166
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4459.1	4459.1	4459.1	4459.1	4459.1
2.5°	4463.1	4463.1	4442.9	4463.1	4467.1
5°	4438.9	4447.0	4426.8	4451.0	4455.0
7.5°	4414.7	4414.7	4402.6	4426.8	4430.8
10°	4370.4	4374.4	4370.4	4398.6	4402.6
12.5°	4313.9	4322.0	4326.0	4354.2	4358.3
15°	4245.4	4257.5	4265.5	4301.8	4309.9
17.5°	4168.8	4180.9	4201.0	4241.4	4249.4
20°	4076.1	4092.2	4116.4	4168.8	4180.9
22.5°	3975.3	3991.4	4031.7	4080.1	4100.2
25°	3858.3	3890.6	3930.9	3995.4	4007.5
27.5°	3741.4	3769.6	3822.1	3890.6	3906.7
30°	3604.3	3648.7	3713.2	3781.7	3797.9
32.5°	3471.3	3515.6	3592.2	3664.8	3685.0
35°	3334.2	3374.5	3455.2	3539.8	3564.0
37.5°	3177.0	3229.4	3318.1	3402.8	3426.9
40°	3011.7	3076.2	3177.0	3265.7	3293.9
42.5°	2854.4	2923.0	3023.8	3120.5	3152.8
45°	2689.1	2753.7	2874.6	2983.5	3007.7
47.5°	2519.8	2592.4	2721.4	2830.3	2870.6
50°	2350.5	2427.1	2564.2	2677.1	2701.2
52.5°	2181.2	2261.8	2406.9	2527.9	2540.0
55°	2003.8	2092.5	2245.7	2362.6	2386.8
57.5°	1842.5	1919.1	2084.4	2205.3	2233.6
60°	1665.1	1749.8	1927.2	2040.0	2076.3
62.5°	1495.8	1584.5	1769.9	1882.8	1915.1
65°	1318.4	1419.2	1600.6	1733.6	1765.9
67.5°	1165.2	1261.9	1455.4	1584.5	1616.7
70°	987.8	1096.6	1302.2	1435.3	1467.5
72.5°	834.6	947.5	1153.1	1282.1	1330.5
75°	669.3	798.3	1003.9	1141.0	1173.2
77.5°	508.0	657.2	866.8	971.6	971.6
80°	362.9	520.1	713.6	762.0	770.1
82.5°	237.9	391.1	528.2	524.1	524.1
85°	137.1	254.0	314.5	306.4	306.4
87.5°	52.4	104.8	112.9	112.9	108.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)