

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: P388392

Luminaire Tested: **24CZ2-150VHE-SQR-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: P388392
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-SQR-UNV-L930-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11601.4 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

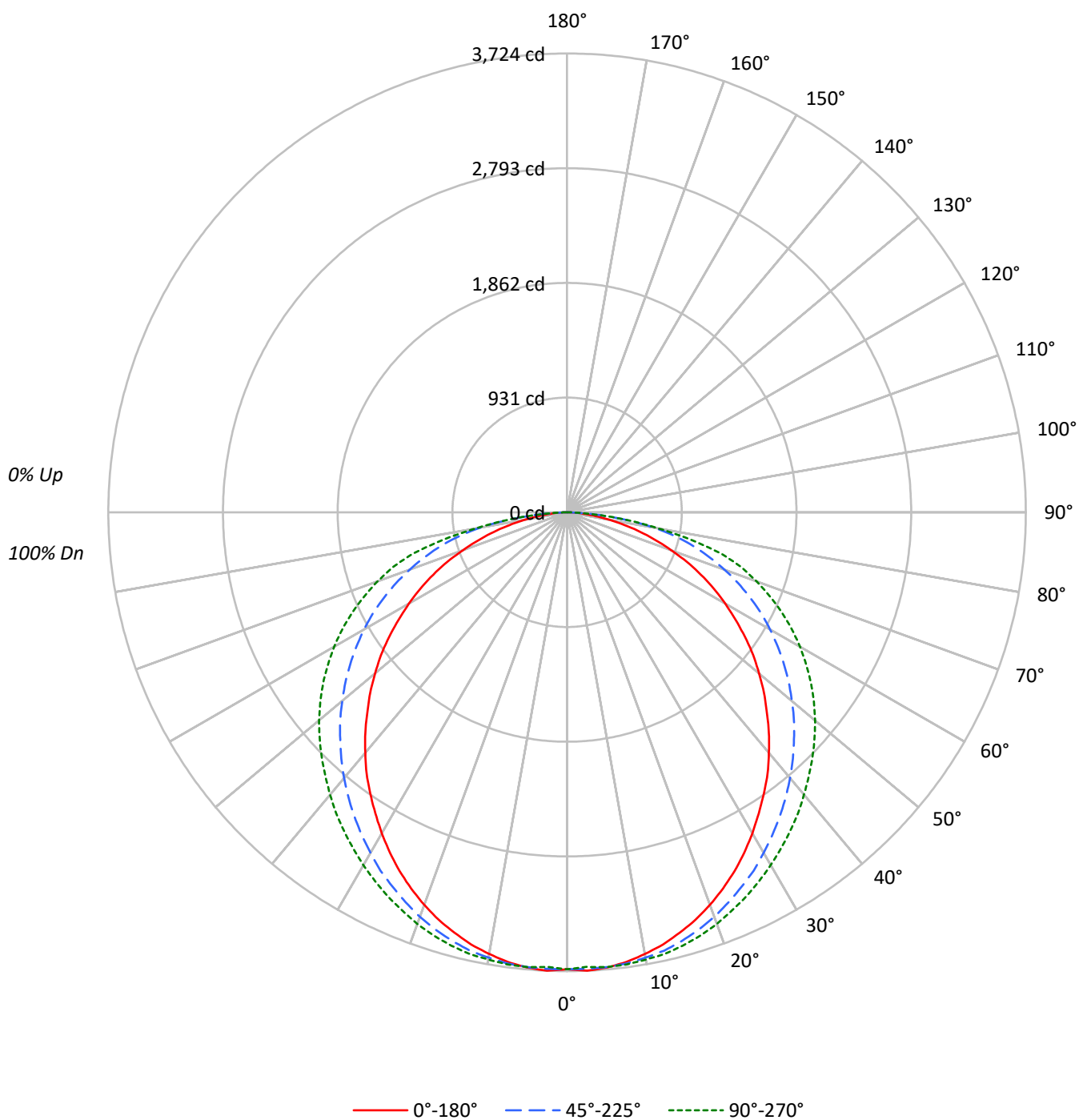
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		89
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		77
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		67
4	81	68	59	52	78	67	58	52	64	57	51		62	55	50		60
5	74	61	51	44	72	60	51	44	57	50	44		55	49	43		54
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4990	4990	4990
5°	5009	5003	5003
10°	4972	5014	5035
15°	4920	5016	5070
20°	4855	5003	5090
25°	4772	4976	5107
30°	4672	4958	5136
35°	4575	4946	5185
40°	4475	4946	5255
45°	4359	4957	5358
50°	4258	4988	5501
55°	4134	5042	5670
60°	3990	5124	5876
65°	3818	5220	6123
70°	3542	5350	6435
75°	3206	5536	6732
80°	2701	5551	5788
85°	2070	4199	4199



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.0	3.0
10°-20°	1012.8	8.7
20°-30°	1538.3	13.3
30°-40°	1871.2	16.1
40°-50°	1992.2	17.2
50°-60°	1897.5	16.4
60°-70°	1586.8	13.7
70°-80°	1058.0	9.1
80°-90°	292.7	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°	2903.1	25.0
0°-40°	4774.3	41.2
0°-60°	8663.9	74.7
0°-90°	11601.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11601.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3708	3708	3708	3708	3708	
5°	3708	3685	3704	3704	3704	352
15°	3532	3540	3601	3628	3639	996
25°	3214	3256	3352	3410	3440	1480
35°	2785	2866	3011	3111	3157	1743
45°	2291	2414	2605	2751	2816	1771
55°	1762	1916	2149	2337	2417	1575
65°	1199	1375	1640	1843	1923	1185
75°	617	812	1065	1245	1295	653
85°	134	249	272	268	272	162
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3708.4	3708.4	3708.4	3708.4	3708.4
2.5°	3723.7	3696.9	3708.4	3708.4	3693.0
5°	3708.4	3685.4	3704.5	3704.5	3704.5
7.5°	3681.6	3662.4	3693.0	3700.7	3700.7
10°	3639.4	3631.8	3670.1	3681.6	3685.4
12.5°	3593.4	3589.6	3643.2	3658.6	3670.1
15°	3532.1	3539.8	3601.1	3627.9	3639.4
17.5°	3467.0	3482.3	3551.3	3589.6	3601.1
20°	3390.4	3413.4	3493.8	3532.1	3555.1
22.5°	3306.1	3340.6	3424.9	3470.9	3497.7
25°	3214.2	3256.3	3352.1	3409.6	3440.2
27.5°	3114.6	3168.2	3279.3	3344.4	3375.1
30°	3007.3	3068.6	3191.2	3267.8	3306.1
32.5°	2896.2	2969.0	3103.1	3187.4	3233.3
35°	2785.1	2865.6	3011.1	3110.7	3156.7
37.5°	2674.0	2754.5	2915.4	3022.6	3080.1
40°	2547.6	2643.4	2815.8	2934.5	2992.0
42.5°	2425.0	2528.4	2712.3	2842.6	2903.9
45°	2290.9	2413.5	2605.1	2750.6	2815.8
47.5°	2168.3	2290.9	2497.8	2651.0	2723.8
50°	2034.2	2164.5	2382.9	2551.4	2628.0
52.5°	1904.0	2038.1	2267.9	2448.0	2524.6
55°	1762.2	1915.5	2149.2	2336.9	2417.3
57.5°	1620.5	1785.2	2026.6	2222.0	2302.4
60°	1482.6	1651.1	1904.0	2099.4	2183.6
62.5°	1344.7	1513.2	1777.6	1976.8	2057.2
65°	1199.1	1375.3	1639.7	1842.7	1923.1
67.5°	1053.5	1237.4	1501.7	1704.8	1781.4
70°	900.3	1095.7	1360.0	1559.2	1635.8
72.5°	758.5	953.9	1214.4	1409.8	1482.6
75°	616.8	812.2	1065.0	1245.1	1294.9
77.5°	478.9	674.2	900.3	1019.0	1030.5
80°	348.6	532.5	716.4	750.9	747.0
82.5°	233.7	398.4	494.2	498.0	509.5
85°	134.1	249.0	272.0	268.2	272.0
87.5°	53.6	88.1	76.6	57.5	57.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)