

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: P388677

Luminaire Tested: **24CZ2-150VHE-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: P388677
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-UNV-L930-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12080.0 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

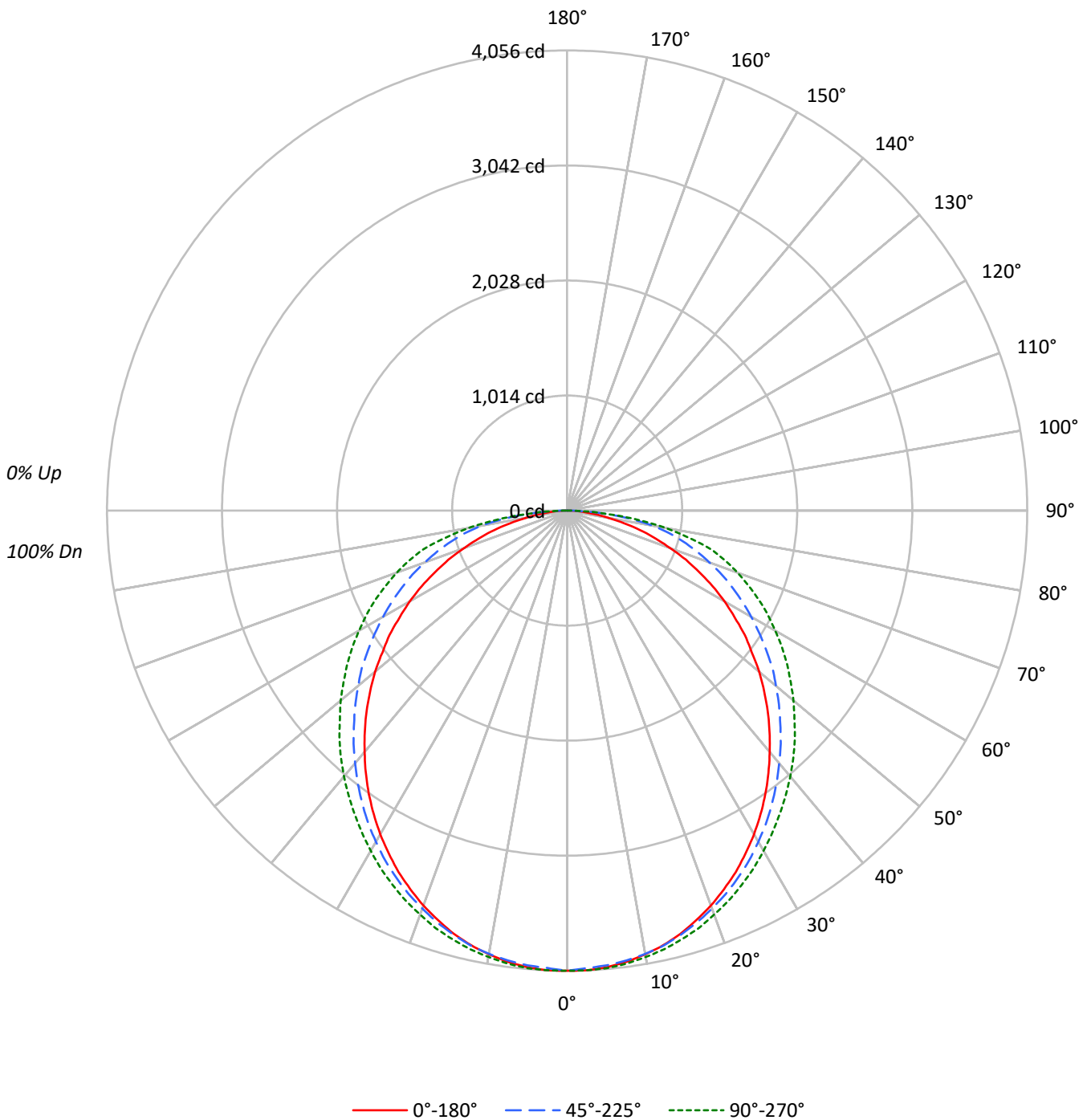
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388677

CATALOG NUMBER: 24CZ2-150VHE-UNV-L930-CD2-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388677

CATALOG NUMBER: 24CZ2-150VHE-UNV-L930-CD2-SDWPD1-U

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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5457	5457	5457
5°	5456	5434	5467
10°	5426	5420	5459
15°	5380	5391	5447
20°	5305	5345	5426
25°	5219	5297	5405
30°	5117	5236	5381
35°	5006	5172	5364
40°	4879	5106	5375
45°	4756	5055	5401
50°	4625	5030	5452
55°	4483	5022	5552
60°	4307	5045	5696
65°	4082	5121	5943
70°	3791	5250	6281
75°	3458	5512	6812
80°	2843	5935	6810
85°	2178	5477	5851



TEST NUMBER: P388677

CATALOG NUMBER: 24CZ2-150VHE-UNV-L930-CD2-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.6	3.2
10°-20°	1095.1	9.1
20°-30°	1648.0	13.6
30°-40°	1974.9	16.3
40°-50°	2058.0	17.0
50°-60°	1914.8	15.9
60°-70°	1577.1	13.1
70°-80°	1074.0	8.9
80°-90°	354.6	2.9
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°	3126.6	25.9
0°-40°	5101.5	42.2
0°-60°	9074.3	75.1
0°-90°	12080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12080.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4056	4056	4056	4056	4056	
5°	4040	4040	4024	4044	4048	383
15°	3862	3866	3870	3907	3911	1088
25°	3516	3532	3568	3628	3641	1618
35°	3048	3084	3149	3233	3266	1905
45°	2500	2552	2657	2790	2838	1928
55°	1911	1976	2141	2310	2367	1703
65°	1282	1391	1609	1798	1867	1273
75°	665	814	1060	1250	1310	701
85°	141	274	355	379	379	175
90°	0	0	0	0	0	



TEST NUMBER: P388677

CATALOG NUMBER: 24CZ2-150VHE-UNV-L930-CD2-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4055.8	4055.8	4055.8	4055.8	4055.8
2.5°	4055.8	4055.8	4035.7	4055.8	4055.8
5°	4039.7	4039.7	4023.6	4043.7	4047.8
7.5°	4011.5	4015.5	3999.4	4023.6	4027.6
10°	3971.2	3975.2	3967.1	3991.3	3995.3
12.5°	3922.8	3926.8	3926.8	3955.0	3959.1
15°	3862.3	3866.3	3870.4	3906.6	3910.7
17.5°	3785.7	3797.8	3805.9	3850.2	3858.3
20°	3705.1	3717.2	3733.3	3781.7	3789.7
22.5°	3612.3	3628.5	3656.7	3709.1	3721.2
25°	3515.6	3531.7	3568.0	3628.5	3640.6
27.5°	3406.7	3430.9	3475.3	3539.8	3555.9
30°	3293.8	3318.0	3370.4	3439.0	3463.2
32.5°	3172.9	3205.1	3265.6	3342.2	3366.4
35°	3047.9	3084.2	3148.7	3233.4	3265.6
37.5°	2914.9	2955.2	3031.8	3124.5	3164.8
40°	2777.8	2826.2	2906.8	3015.7	3060.0
42.5°	2640.7	2685.1	2785.9	2902.8	2951.2
45°	2499.6	2552.0	2656.8	2789.9	2838.3
47.5°	2354.5	2406.9	2531.9	2673.0	2717.3
50°	2209.3	2261.7	2402.9	2552.0	2604.4
52.5°	2052.1	2120.6	2281.9	2431.1	2483.5
55°	1911.0	1975.5	2140.8	2310.1	2366.6
57.5°	1749.7	1826.3	2007.8	2185.1	2245.6
60°	1600.6	1681.2	1874.7	2056.1	2116.6
62.5°	1447.4	1536.1	1741.7	1927.1	1995.7
65°	1282.1	1390.9	1608.6	1798.1	1866.6
67.5°	1132.9	1245.8	1475.6	1669.1	1729.6
70°	963.6	1100.6	1334.5	1528.0	1596.5
72.5°	818.4	955.5	1201.4	1390.9	1459.4
75°	665.2	814.4	1060.3	1249.8	1310.3
77.5°	512.0	677.3	923.2	1068.4	1088.5
80°	366.9	540.2	766.0	850.7	878.9
82.5°	258.0	415.3	564.4	620.9	637.0
85°	141.1	274.2	354.8	379.0	379.0
87.5°	60.5	116.9	141.1	145.1	149.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)