

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: P388687

Luminaire Tested: **24CZ2-150VHE-UNV-L950-CD2-SWPD1-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: P388687
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-L950-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13437.2 lumens
Efficiency: N/A
Efficacy: 129.0 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

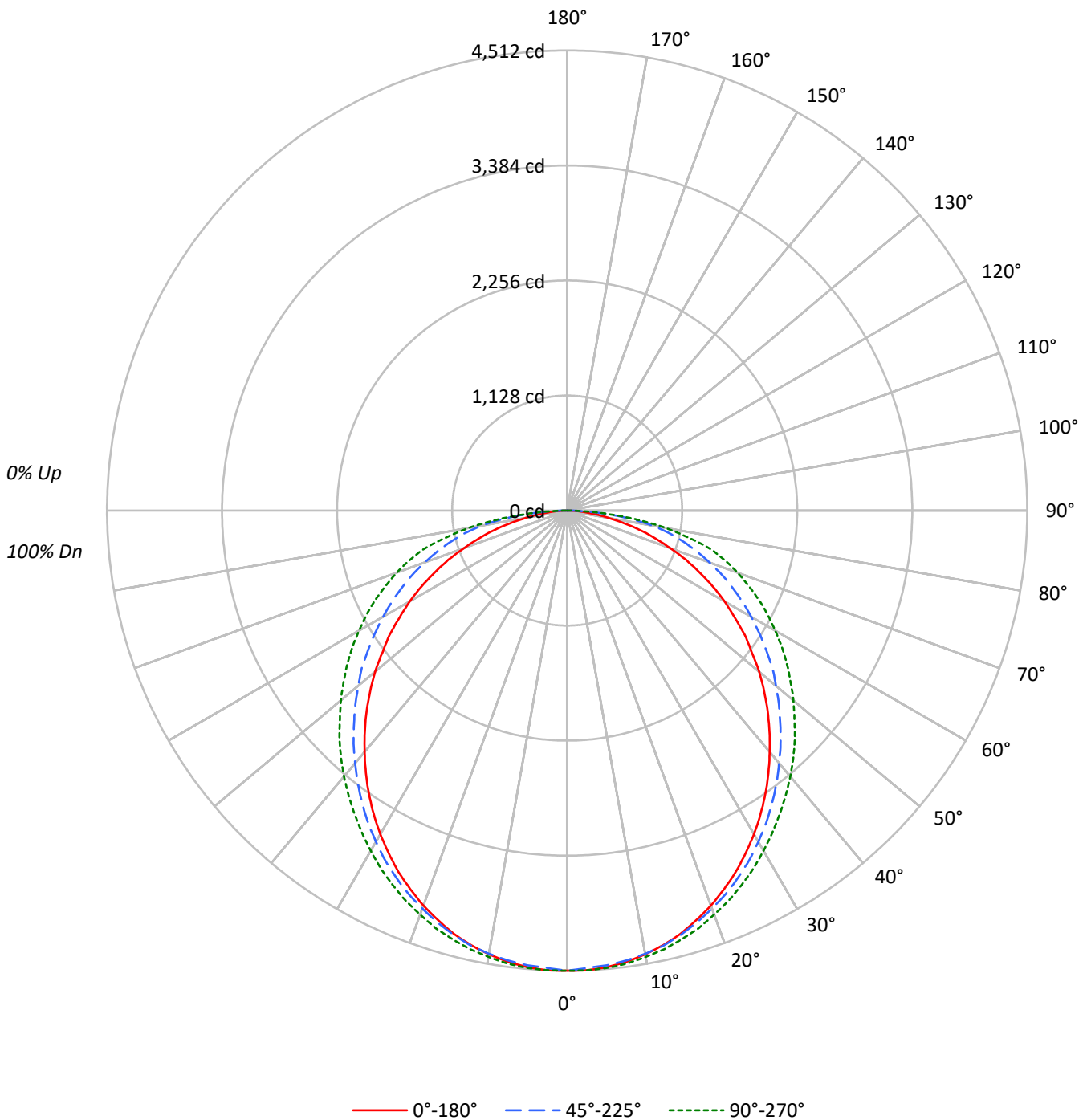
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388687

CATALOG NUMBER: 24CZ2-150VHE-UNV-L950-CD2-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388687

CATALOG NUMBER: 24CZ2-150VHE-UNV-L950-CD2-SWPD1-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°	6070	6070	6070
5°	6069	6045	6081
10°	6035	6029	6072
15°	5984	5997	6059
20°	5901	5946	6036
25°	5806	5892	6012
30°	5692	5825	5985
35°	5569	5753	5967
40°	5427	5679	5978
45°	5291	5623	6007
50°	5144	5595	6064
55°	4986	5586	6175
60°	4791	5611	6336
65°	4540	5697	6611
70°	4216	5840	6986
75°	3847	6131	7577
80°	3162	6602	7575
85°	2424	6092	6509



TEST NUMBER: P388687

CATALOG NUMBER: 24CZ2-150VHE-UNV-L950-CD2-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.7	3.2
10°-20°	1218.1	9.1
20°-30°	1833.1	13.6
30°-40°	2196.8	16.3
40°-50°	2289.2	17.0
50°-60°	2129.9	15.9
60°-70°	1754.2	13.1
70°-80°	1194.7	8.9
80°-90°	394.4	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°	3477.9	25.9
0°-40°	5674.7	42.2
0°-60°	10093.8	75.1
0°-90°	13437.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13437.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4512	4512	4512	4512	4512	
5°	4494	4494	4476	4498	4502	426
15°	4296	4301	4305	4346	4350	1210
25°	3911	3928	3969	4036	4050	1800
35°	3390	3431	3502	3597	3632	2119
45°	2780	2839	2955	3103	3157	2144
55°	2126	2197	2381	2570	2632	1895
65°	1426	1547	1789	2000	2076	1416
75°	740	906	1179	1390	1458	780
85°	157	305	395	422	422	195
90°	0	0	0	0	0	



TEST NUMBER: P388687

CATALOG NUMBER: 24CZ2-150VHE-UNV-L950-CD2-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4511.5	4511.5	4511.5	4511.5	4511.5
2.5°	4511.5	4511.5	4489.1	4511.5	4511.5
5°	4493.6	4493.6	4475.6	4498.0	4502.5
7.5°	4462.2	4466.6	4448.7	4475.6	4480.1
10°	4417.3	4421.8	4412.8	4439.7	4444.2
12.5°	4363.5	4368.0	4368.0	4399.4	4403.9
15°	4296.2	4300.7	4305.2	4345.6	4350.0
17.5°	4211.0	4224.5	4233.4	4282.8	4291.7
20°	4121.3	4134.8	4152.7	4206.5	4215.5
22.5°	4018.2	4036.1	4067.5	4125.8	4139.3
25°	3910.6	3928.5	3968.9	4036.1	4049.6
27.5°	3789.5	3816.4	3865.7	3937.5	3955.4
30°	3663.9	3690.8	3749.1	3825.4	3852.3
32.5°	3529.4	3565.2	3632.5	3717.7	3744.6
35°	3390.3	3430.7	3502.5	3596.6	3632.5
37.5°	3242.4	3287.2	3372.4	3475.6	3520.4
40°	3089.9	3143.7	3233.4	3354.5	3403.8
42.5°	2937.4	2986.7	3098.8	3228.9	3282.7
45°	2780.4	2838.7	2955.3	3103.3	3157.1
47.5°	2619.0	2677.3	2816.3	2973.3	3022.6
50°	2457.6	2515.9	2672.8	2838.7	2897.0
52.5°	2282.7	2358.9	2538.3	2704.2	2762.5
55°	2125.7	2197.4	2381.3	2569.7	2632.5
57.5°	1946.3	2031.5	2233.3	2430.6	2497.9
60°	1780.4	1870.1	2085.3	2287.1	2354.4
62.5°	1610.0	1708.6	1937.3	2143.6	2219.9
65°	1426.1	1547.2	1789.3	2000.1	2076.4
67.5°	1260.2	1385.7	1641.4	1856.6	1923.9
70°	1071.8	1224.3	1484.4	1699.7	1775.9
72.5°	910.4	1062.8	1336.4	1547.2	1623.4
75°	740.0	905.9	1179.4	1390.2	1457.5
77.5°	569.5	753.4	1027.0	1188.4	1210.8
80°	408.1	600.9	852.1	946.2	977.6
82.5°	287.0	461.9	627.8	690.6	708.6
85°	157.0	305.0	394.6	421.6	421.6
87.5°	67.3	130.1	157.0	161.4	165.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)