

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: P388402

Luminaire Tested: **24CZ2-150VHE-SQR-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: P388402
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-L950-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12904.8 lumens
Efficiency: N/A
Efficacy: 123.8 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

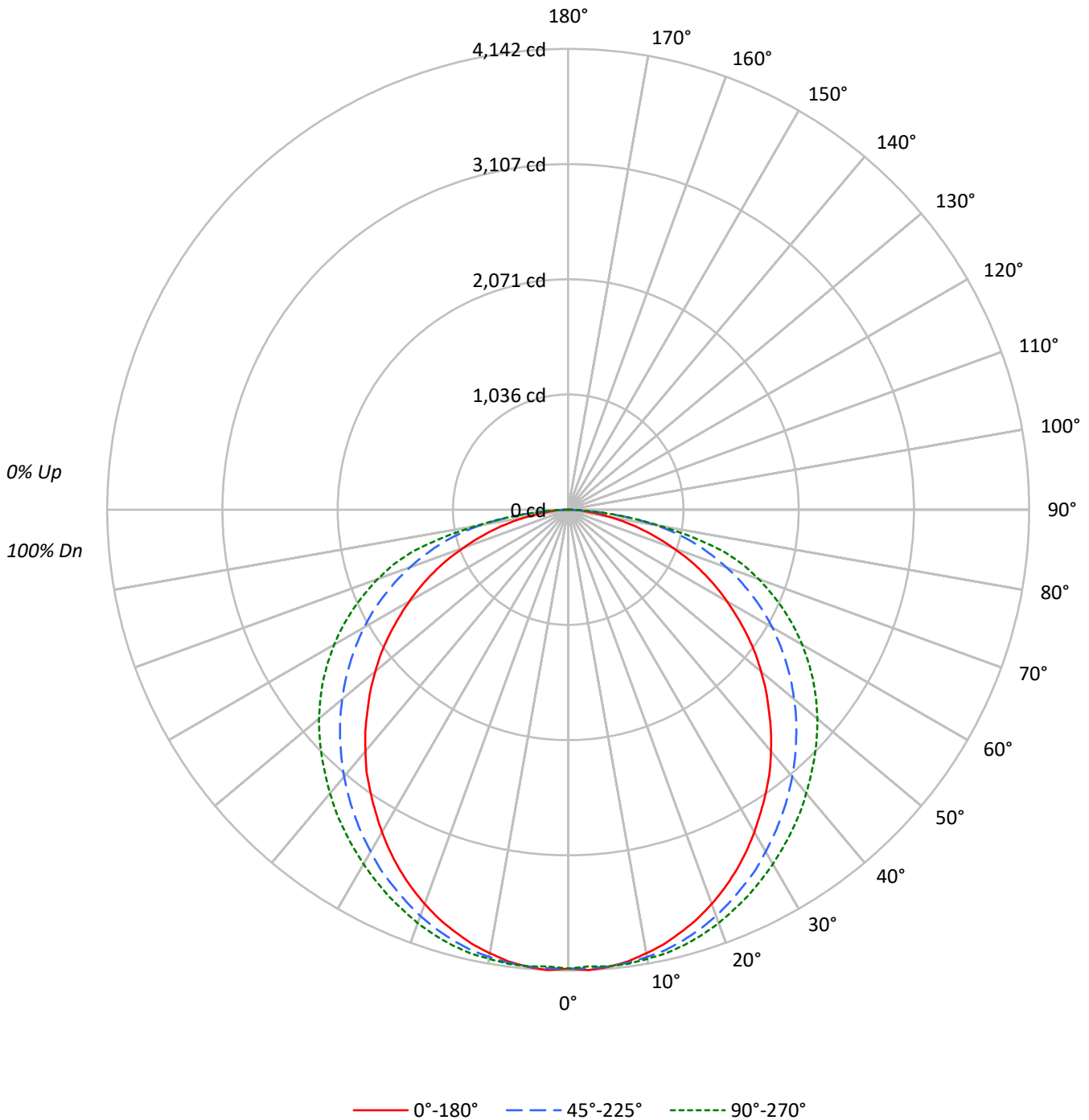
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388402

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

Luminous Intensity Polar Plot





TEST NUMBER: P388402

CATALOG NUMBER: 24CZ2-150VHE-SQR-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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5550	5550	5550
5°	5571	5566	5566
10°	5531	5578	5601
15°	5473	5580	5639
20°	5400	5565	5662
25°	5308	5536	5681
30°	5197	5515	5714
35°	5089	5502	5768
40°	4977	5501	5846
45°	4849	5514	5960
50°	4737	5548	6119
55°	4598	5608	6308
60°	4438	5699	6536
65°	4246	5807	6811
70°	3939	5951	7158
75°	3567	6159	7488
80°	3005	6175	6439
85°	2302	4671	4671



TEST NUMBER: P388402

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.6	3.0
10°-20°	1126.6	8.7
20°-30°	1711.2	13.3
30°-40°	2081.4	16.1
40°-50°	2216.0	17.2
50°-60°	2110.6	16.4
60°-70°	1765.1	13.7
70°-80°	1176.8	9.1
80°-90°	325.6	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°	3229.3	25.0
0°-40°	5310.7	41.2
0°-60°	9637.3	74.7
0°-90°	12904.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12904.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4125	4125	4125	4125	4125	
5°	4125	4099	4121	4121	4121	391
15°	3929	3938	4006	4036	4048	1108
25°	3575	3622	3729	3793	3827	1646
35°	3098	3188	3349	3460	3511	1939
45°	2548	2685	2898	3060	3132	1970
55°	1960	2131	2391	2599	2689	1752
65°	1334	1530	1824	2050	2139	1318
75°	686	903	1185	1385	1440	727
85°	149	277	303	298	303	180
90°	0	0	0	0	0	



TEST NUMBER: P388402

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4125.0	4125.0	4125.0	4125.0	4125.0
2.5°	4142.0	4112.2	4125.0	4125.0	4108.0
5°	4125.0	4099.4	4120.7	4120.7	4120.7
7.5°	4095.2	4073.9	4108.0	4116.5	4116.5
10°	4048.3	4039.8	4082.4	4095.2	4099.4
12.5°	3997.2	3992.9	4052.6	4069.6	4082.4
15°	3929.0	3937.5	4005.7	4035.5	4048.3
17.5°	3856.5	3873.6	3950.3	3992.9	4005.7
20°	3771.3	3796.9	3886.4	3929.0	3954.5
22.5°	3677.6	3715.9	3809.7	3860.8	3890.6
25°	3575.3	3622.2	3728.7	3792.6	3826.7
27.5°	3464.5	3524.1	3647.7	3720.2	3754.3
30°	3345.2	3413.4	3549.7	3634.9	3677.6
32.5°	3221.6	3302.6	3451.7	3545.5	3596.6
35°	3098.0	3187.5	3349.4	3460.2	3511.4
37.5°	2974.4	3063.9	3242.9	3362.2	3426.1
40°	2833.8	2940.3	3132.1	3264.2	3328.1
42.5°	2697.4	2812.5	3017.0	3161.9	3230.1
45°	2548.3	2684.7	2897.7	3059.7	3132.1
47.5°	2411.9	2548.3	2778.4	2948.9	3029.8
50°	2262.8	2407.7	2650.6	2838.1	2923.3
52.5°	2117.9	2267.0	2522.7	2723.0	2808.2
55°	1960.2	2130.7	2390.6	2599.4	2688.9
57.5°	1802.6	1985.8	2254.3	2471.6	2561.1
60°	1649.1	1836.6	2117.9	2335.2	2429.0
62.5°	1495.7	1683.2	1977.3	2198.9	2288.4
65°	1333.8	1529.8	1823.9	2049.7	2139.2
67.5°	1171.9	1376.4	1670.5	1896.3	1981.5
70°	1001.4	1218.8	1512.8	1734.4	1819.6
72.5°	843.8	1061.1	1350.9	1568.2	1649.1
75°	686.1	903.4	1184.7	1384.9	1440.3
77.5°	532.7	750.0	1001.4	1133.5	1146.3
80°	387.8	592.3	796.9	835.2	831.0
82.5°	259.9	443.2	549.7	554.0	566.8
85°	149.1	277.0	302.6	298.3	302.6
87.5°	59.7	98.0	85.2	63.9	63.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)