

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: P389614

Luminaire Tested: **24CZ2-150VHE-S-UNV-L930-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: P389614
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-SWPD1-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: 12847.8 lumens
Efficiency: N/A
Efficacy: 123.3 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

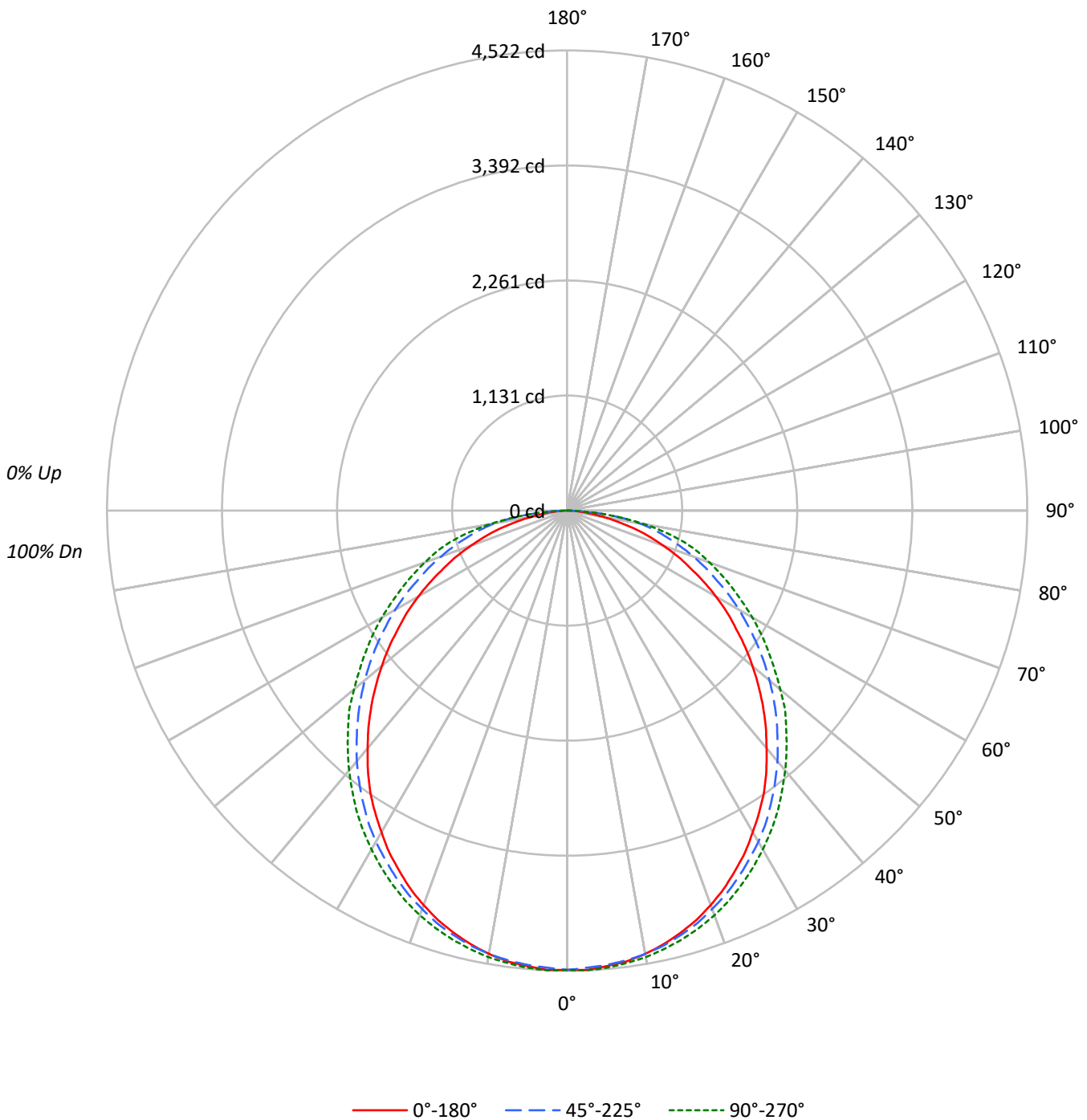
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6073	6073	6073
5°	6069	6052	6091
10°	6044	6044	6089
15°	5986	6014	6077
20°	5907	5966	6059
25°	5798	5907	6022
30°	5668	5839	5972
35°	5543	5745	5925
40°	5354	5648	5856
45°	5179	5537	5793
50°	4980	5433	5723
55°	4758	5332	5667
60°	4535	5249	5656
65°	4249	5158	5691
70°	3933	5185	5844
75°	3522	5283	6174
80°	2846	5597	6040
85°	2143	4914	4789



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.3	3.3
10°-20°	1220.9	9.5
20°-30°	1835.3	14.3
30°-40°	2186.2	17.0
40°-50°	2237.5	17.4
50°-60°	2014.4	15.7
60°-70°	1581.9	12.3
70°-80°	1026.7	8.0
80°-90°	317.5	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°	3483.6	27.1
0°-40°	5669.8	44.1
0°-60°	9921.6	77.2
0°-90°	12847.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12847.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4514	4514	4514	4514	4514	
5°	4493	4501	4481	4505	4509	427
15°	4297	4310	4318	4354	4362	1212
25°	3906	3938	3979	4044	4056	1799
35°	3375	3416	3497	3583	3608	2105
45°	2722	2787	2910	3020	3044	2099
55°	2028	2118	2273	2391	2416	1818
65°	1334	1436	1620	1755	1788	1328
75°	677	808	1016	1155	1188	717
85°	139	257	318	310	310	168
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4513.5	4513.5	4513.5	4513.5	4513.5
2.5°	4517.6	4517.6	4497.2	4517.6	4521.7
5°	4493.1	4501.3	4480.9	4505.4	4509.4
7.5°	4468.6	4468.6	4456.4	4480.9	4484.9
10°	4423.7	4427.8	4423.7	4452.3	4456.4
12.5°	4366.6	4374.8	4378.8	4407.4	4411.5
15°	4297.2	4309.5	4317.6	4354.4	4362.5
17.5°	4219.7	4231.9	4252.3	4293.1	4301.3
20°	4125.8	4142.2	4166.6	4219.7	4231.9
22.5°	4023.8	4040.1	4080.9	4129.9	4150.3
25°	3905.5	3938.1	3978.9	4044.2	4056.5
27.5°	3787.1	3815.7	3868.7	3938.1	3954.4
30°	3648.4	3693.2	3758.5	3827.9	3844.2
32.5°	3513.7	3558.6	3636.1	3709.6	3730.0
35°	3374.9	3415.7	3497.4	3583.1	3607.5
37.5°	3215.8	3268.8	3358.6	3444.3	3468.8
40°	3048.5	3113.8	3215.8	3305.6	3334.1
42.5°	2889.3	2958.7	3060.7	3158.6	3191.3
45°	2722.0	2787.3	2909.7	3019.9	3044.4
47.5°	2550.6	2624.0	2754.6	2864.8	2905.6
50°	2379.2	2456.7	2595.5	2709.7	2734.2
52.5°	2207.8	2289.4	2436.3	2558.7	2571.0
55°	2028.2	2118.0	2273.1	2391.4	2415.9
57.5°	1865.0	1942.5	2109.8	2232.3	2260.8
60°	1685.4	1771.1	1950.7	2065.0	2101.7
62.5°	1514.0	1603.8	1791.5	1905.8	1938.4
65°	1334.5	1436.5	1620.1	1754.8	1787.5
67.5°	1179.4	1277.3	1473.2	1603.8	1636.5
70°	999.8	1110.0	1318.1	1452.8	1485.5
72.5°	844.8	959.0	1167.1	1297.7	1346.7
75°	677.4	808.0	1016.2	1154.9	1187.6
77.5°	514.2	665.2	877.4	983.5	983.5
80°	367.3	526.4	722.3	771.3	779.5
82.5°	240.8	395.9	534.6	530.5	530.5
85°	138.8	257.1	318.3	310.2	310.2
87.5°	53.1	106.1	114.3	114.3	110.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)