

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: P388688

Luminaire Tested: **24CZ2-150VHE-UNV-L950-CD2-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: P388688
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-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: 13606.0 lumens
Efficiency: N/A
Efficacy: 130.6 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

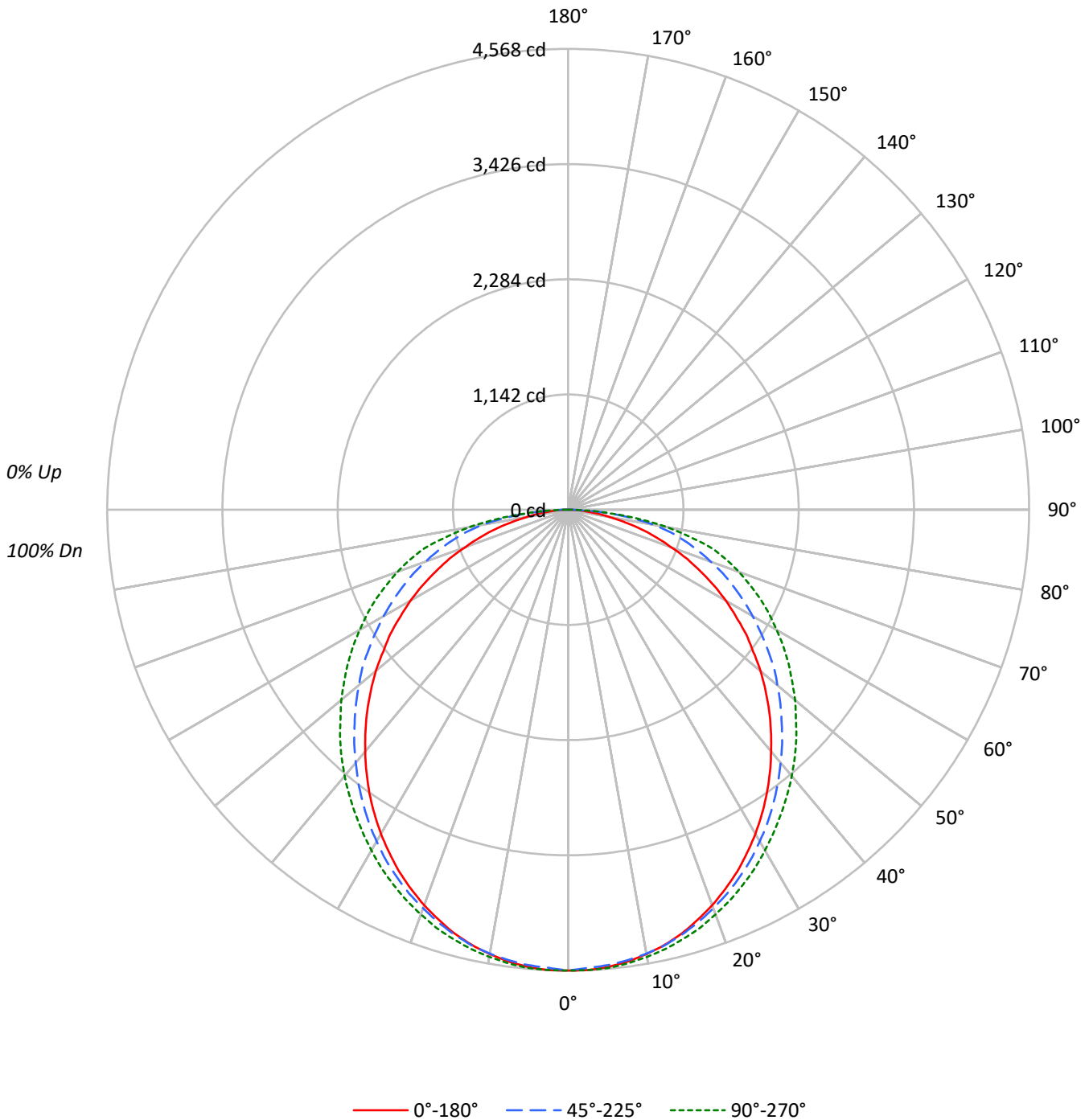
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	6146	6146	6146
5°	6145	6121	6158
10°	6111	6105	6148
15°	6060	6072	6136
20°	5975	6021	6112
25°	5879	5966	6088
30°	5764	5898	6060
35°	5639	5825	6041
40°	5495	5750	6054
45°	5357	5694	6083
50°	5209	5665	6140
55°	5049	5656	6253
60°	4851	5682	6415
65°	4597	5768	6693
70°	4270	5913	7074
75°	3895	6209	7672
80°	3202	6685	7670
85°	2453	6169	6589



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	432.0	3.2
10°-20°	1233.4	9.1
20°-30°	1856.1	13.6
30°-40°	2224.4	16.3
40°-50°	2318.0	17.0
50°-60°	2156.7	15.9
60°-70°	1776.3	13.1
70°-80°	1209.7	8.9
80°-90°	399.4	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°	3521.6	25.9
0°-40°	5746.0	42.2
0°-60°	10220.6	75.1
0°-90°	13606.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13606.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4568	4568	4568	4568	4568	
5°	4550	4550	4532	4554	4559	432
15°	4350	4355	4359	4400	4405	1226
25°	3960	3978	4019	4087	4100	1823
35°	3433	3474	3546	3642	3678	2146
45°	2815	2874	2992	3142	3197	2171
55°	2152	2225	2411	2602	2666	1919
65°	1444	1567	1812	2025	2102	1433
75°	749	917	1194	1408	1476	790
85°	159	309	400	427	427	197
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4568.2	4568.2	4568.2	4568.2	4568.2
2.5°	4568.2	4568.2	4545.5	4568.2	4568.2
5°	4550.0	4550.0	4531.8	4554.5	4559.1
7.5°	4518.2	4522.8	4504.6	4531.8	4536.4
10°	4472.8	4477.3	4468.3	4495.5	4500.1
12.5°	4418.3	4422.9	4422.9	4454.6	4459.2
15°	4350.2	4354.7	4359.3	4400.2	4404.7
17.5°	4263.9	4277.5	4286.6	4336.6	4345.7
20°	4173.1	4186.7	4204.9	4259.4	4268.5
22.5°	4068.7	4086.8	4118.6	4177.6	4191.3
25°	3959.7	3977.8	4018.7	4086.8	4100.5
27.5°	3837.1	3864.3	3914.3	3986.9	4005.1
30°	3709.9	3737.2	3796.2	3873.4	3900.7
32.5°	3573.7	3610.0	3678.1	3764.4	3791.7
35°	3432.9	3473.8	3546.5	3641.8	3678.1
37.5°	3283.1	3328.5	3414.8	3519.2	3564.6
40°	3128.7	3183.2	3274.0	3396.6	3446.6
42.5°	2974.3	3024.3	3137.8	3269.5	3324.0
45°	2815.4	2874.4	2992.5	3142.3	3196.8
47.5°	2651.9	2710.9	2851.7	3010.6	3060.6
50°	2488.4	2547.5	2706.4	2874.4	2933.4
52.5°	2311.3	2388.5	2570.2	2738.2	2797.2
55°	2152.4	2225.1	2411.2	2601.9	2665.5
57.5°	1970.8	2057.0	2261.4	2461.2	2529.3
60°	1802.7	1893.6	2111.5	2315.9	2384.0
62.5°	1630.2	1730.1	1961.7	2170.6	2247.8
65°	1444.0	1566.6	1811.8	2025.3	2102.4
67.5°	1276.0	1403.1	1662.0	1879.9	1948.1
70°	1085.3	1239.7	1503.0	1721.0	1798.2
72.5°	921.8	1076.2	1353.2	1566.6	1643.8
75°	749.3	917.3	1194.3	1407.7	1475.8
77.5°	576.7	762.9	1039.9	1203.3	1226.0
80°	413.2	608.5	862.8	958.1	989.9
82.5°	290.6	467.7	635.7	699.3	717.5
85°	158.9	308.8	399.6	426.8	426.8
87.5°	68.1	131.7	158.9	163.5	168.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)