

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: P389620

Luminaire Tested: **24CZ2-150VHE-S-UNV-L940-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: P389620
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-L940-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13301.8 lumens
Efficiency: N/A
Efficacy: 127.7 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

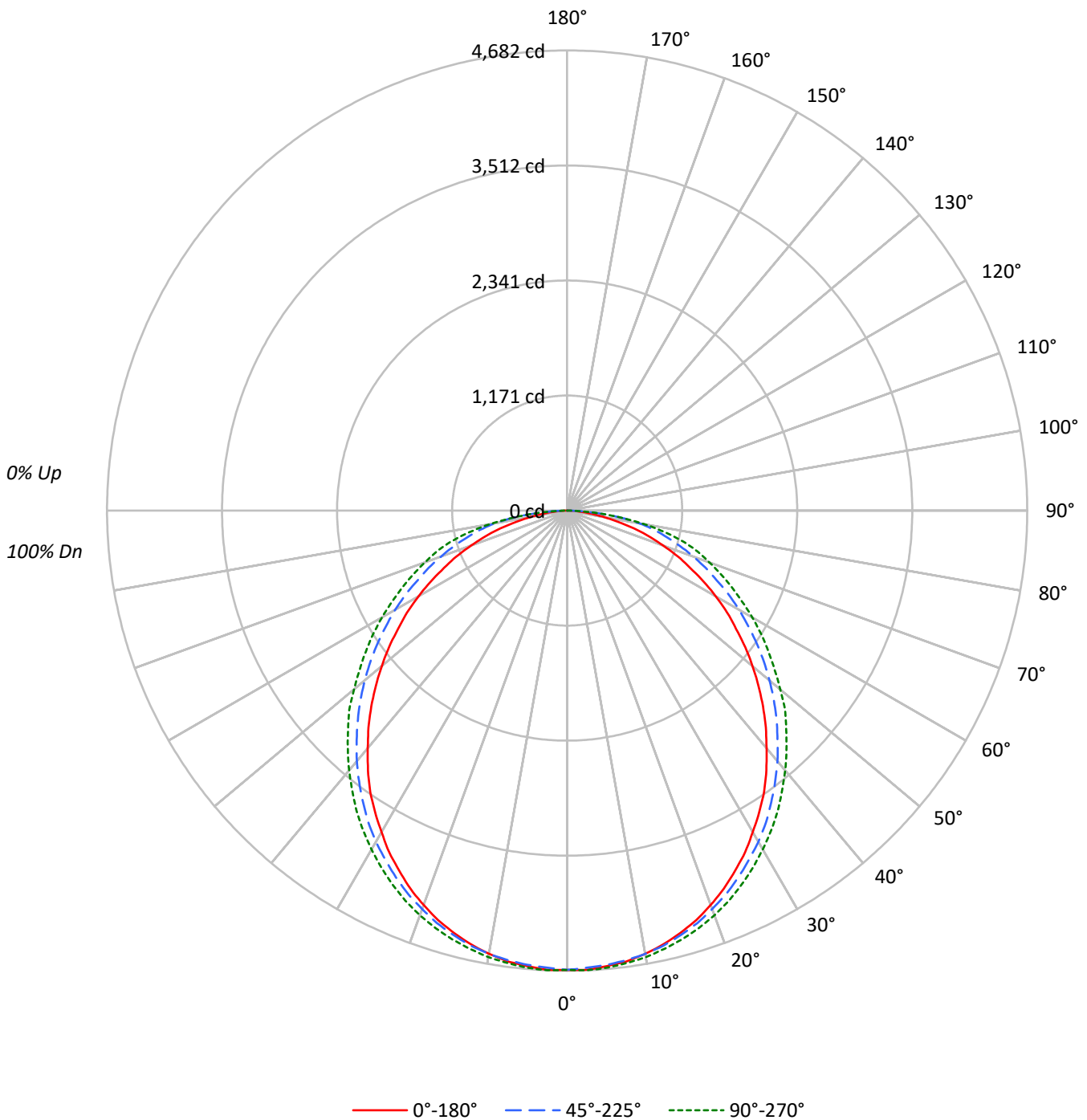
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6287	6287	6287
5°	6283	6266	6306
10°	6258	6258	6304
15°	6197	6227	6292
20°	6116	6177	6274
25°	6003	6116	6235
30°	5869	6046	6184
35°	5739	5947	6135
40°	5544	5848	6063
45°	5362	5732	5998
50°	5156	5625	5925
55°	4926	5521	5868
60°	4696	5435	5855
65°	4399	5340	5892
70°	4072	5369	6050
75°	3646	5469	6392
80°	2947	5795	6253
85°	2218	5088	4957



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	442.4	3.3
10°-20°	1264.1	9.5
20°-30°	1900.2	14.3
30°-40°	2263.4	17.0
40°-50°	2316.5	17.4
50°-60°	2085.6	15.7
60°-70°	1637.8	12.3
70°-80°	1063.0	8.0
80°-90°	328.8	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°	3606.7	27.1
0°-40°	5870.1	44.1
0°-60°	10272.2	77.2
0°-90°	13301.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13301.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4673	4673	4673	4673	4673	
5°	4652	4660	4639	4665	4669	442
15°	4449	4462	4470	4508	4517	1254
25°	4044	4077	4120	4187	4200	1863
35°	3494	3536	3621	3710	3735	2180
45°	2818	2886	3012	3127	3152	2173
55°	2100	2193	2353	2476	2501	1883
65°	1382	1487	1677	1817	1851	1375
75°	701	837	1052	1196	1230	742
85°	144	266	330	321	321	174
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4673.0	4673.0	4673.0	4673.0	4673.0
2.5°	4677.2	4677.2	4656.1	4677.2	4681.5
5°	4651.9	4660.3	4639.2	4664.6	4668.8
7.5°	4626.5	4626.5	4613.9	4639.2	4643.4
10°	4580.1	4584.3	4580.1	4609.6	4613.9
12.5°	4520.9	4529.4	4533.6	4563.2	4567.4
15°	4449.1	4461.8	4470.2	4508.2	4516.7
17.5°	4368.8	4381.5	4402.6	4444.9	4453.3
20°	4271.6	4288.5	4313.9	4368.8	4381.5
22.5°	4166.0	4182.9	4225.1	4275.8	4297.0
25°	4043.5	4077.3	4119.5	4187.1	4199.8
27.5°	3920.9	3950.5	4005.4	4077.3	4094.2
30°	3777.3	3823.8	3891.4	3963.2	3980.1
32.5°	3637.8	3684.3	3764.6	3840.7	3861.8
35°	3494.2	3536.4	3620.9	3709.7	3735.0
37.5°	3329.4	3384.3	3477.3	3566.0	3591.4
40°	3156.2	3223.8	3329.4	3422.4	3451.9
42.5°	2991.4	3063.2	3168.9	3270.3	3304.1
45°	2818.2	2885.8	3012.5	3126.6	3152.0
47.5°	2640.7	2716.8	2852.0	2966.1	3008.3
50°	2463.3	2543.5	2687.2	2805.5	2830.8
52.5°	2285.8	2370.3	2522.4	2649.2	2661.8
55°	2099.9	2192.8	2353.4	2475.9	2501.3
57.5°	1930.9	2011.2	2184.4	2311.2	2340.7
60°	1745.0	1833.7	2019.6	2137.9	2175.9
62.5°	1567.5	1660.5	1854.8	1973.1	2006.9
65°	1381.6	1487.3	1677.4	1816.8	1850.6
67.5°	1221.1	1322.5	1525.3	1660.5	1694.3
70°	1035.2	1149.2	1364.7	1504.2	1538.0
72.5°	874.6	992.9	1208.4	1343.6	1394.3
75°	701.4	836.6	1052.1	1195.7	1229.5
77.5°	532.4	688.7	908.4	1018.3	1018.3
80°	380.3	545.0	747.9	798.6	807.0
82.5°	249.3	409.8	553.5	549.3	549.3
85°	143.7	266.2	329.6	321.1	321.1
87.5°	54.9	109.9	118.3	118.3	114.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)