

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: P391394

Luminaire Tested: **24CZ2-45VHE-RDP-UNV-L935-CD1-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: P391394
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45VHE-RDP-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2592.4 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

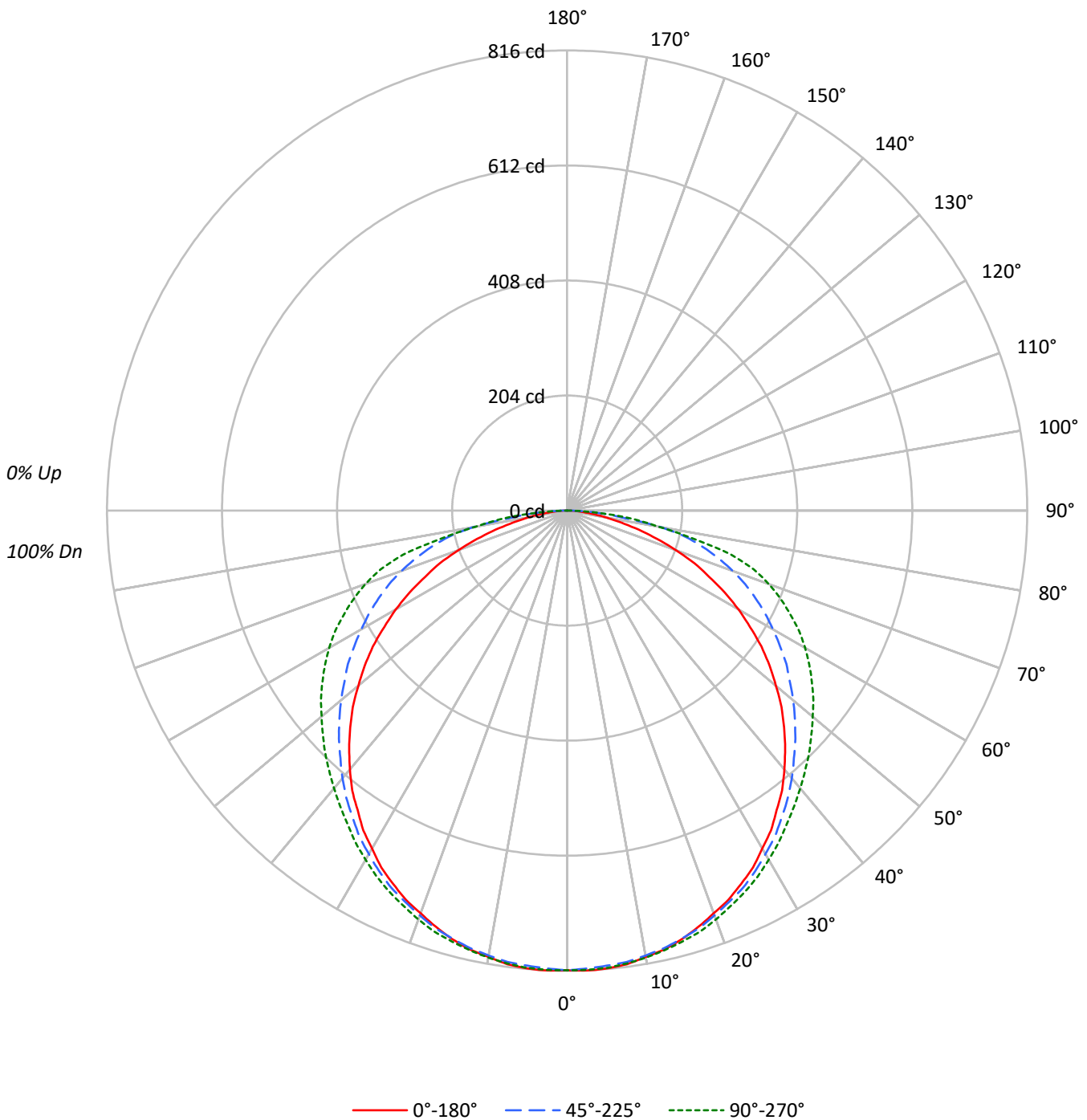
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1097	1097	1097
5°	1101	1094	1099
10°	1098	1094	1100
15°	1096	1094	1102
20°	1088	1094	1105
25°	1084	1096	1107
30°	1075	1093	1111
35°	1065	1090	1115
40°	1052	1089	1129
45°	1035	1089	1155
50°	1012	1095	1190
55°	986	1113	1243
60°	945	1135	1311
65°	884	1175	1392
70°	804	1229	1497
75°	682	1297	1564
80°	538	1305	1265
85°	397	993	1112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	3.0
10°-20°	222.6	8.6
20°-30°	340.4	13.1
30°-40°	416.1	16.0
40°-50°	443.4	17.1
50°-60°	424.0	16.4
60°-70°	359.2	13.9
70°-80°	241.4	9.3
80°-90°	68.1	2.6
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
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0°-30°	640.2	24.7
0°-40°	1056.3	40.7
0°-60°	1923.7	74.2
0°-90°	2592.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2592.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	815	814	810	814	814	77
15°	787	787	786	792	791	222
25°	730	733	738	744	746	337
35°	648	653	664	676	679	406
45°	544	553	572	597	607	420
55°	420	436	474	512	530	375
65°	278	306	369	418	437	276
75°	131	179	250	292	301	140
85°	26	53	64	69	72	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	815.2	815.2	815.2	815.2	815.2
2.5°	816.5	816.5	812.7	815.2	815.2
5°	815.2	813.9	810.1	813.9	813.9
7.5°	811.4	810.1	807.5	811.4	810.1
10°	803.7	803.7	801.1	804.9	804.9
12.5°	797.2	795.9	794.7	799.8	798.5
15°	786.9	786.9	785.7	792.1	790.8
17.5°	774.1	775.4	776.7	781.8	783.1
20°	759.9	762.5	763.8	771.5	771.5
22.5°	747.1	748.4	750.9	758.7	758.7
25°	730.4	732.9	738.1	744.5	745.8
27.5°	713.7	714.9	721.4	730.4	731.7
30°	691.8	695.7	703.4	713.7	714.9
32.5°	672.5	676.4	685.4	695.7	698.2
35°	648.1	653.2	663.5	676.4	678.9
37.5°	626.2	630.1	642.9	657.1	660.9
40°	599.2	606.9	619.8	636.5	642.9
42.5°	572.2	579.9	595.4	617.2	624.9
45°	543.9	552.9	572.2	596.6	606.9
47.5°	515.6	525.9	547.8	576.1	587.6
50°	483.5	496.3	523.3	555.5	568.4
52.5°	452.6	468.1	497.6	533.6	550.3
55°	420.5	435.9	474.5	511.8	529.8
57.5°	384.5	405.0	447.5	489.9	509.2
60°	351.0	370.3	421.8	468.1	487.3
62.5°	315.0	340.8	396.0	444.9	464.2
65°	277.7	306.0	369.0	417.9	437.2
67.5°	244.3	275.2	342.0	390.9	410.2
70°	204.5	243.0	312.5	361.3	380.6
72.5°	167.2	209.6	281.6	329.2	347.2
75°	131.2	178.7	249.5	291.9	300.9
77.5°	97.7	147.9	216.0	234.0	227.6
80°	69.4	118.3	168.4	159.4	163.3
82.5°	45.0	90.0	104.2	118.3	122.2
85°	25.7	52.7	64.3	69.4	72.0
87.5°	11.6	19.3	25.7	25.7	24.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)