

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: P391418

Luminaire Tested: **24CZ2-50VHE-HRP-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: P391418
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: 24CZ2-50VHE-HRP-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3634.3 lumens
Efficiency: N/A
Efficacy: 111.1 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

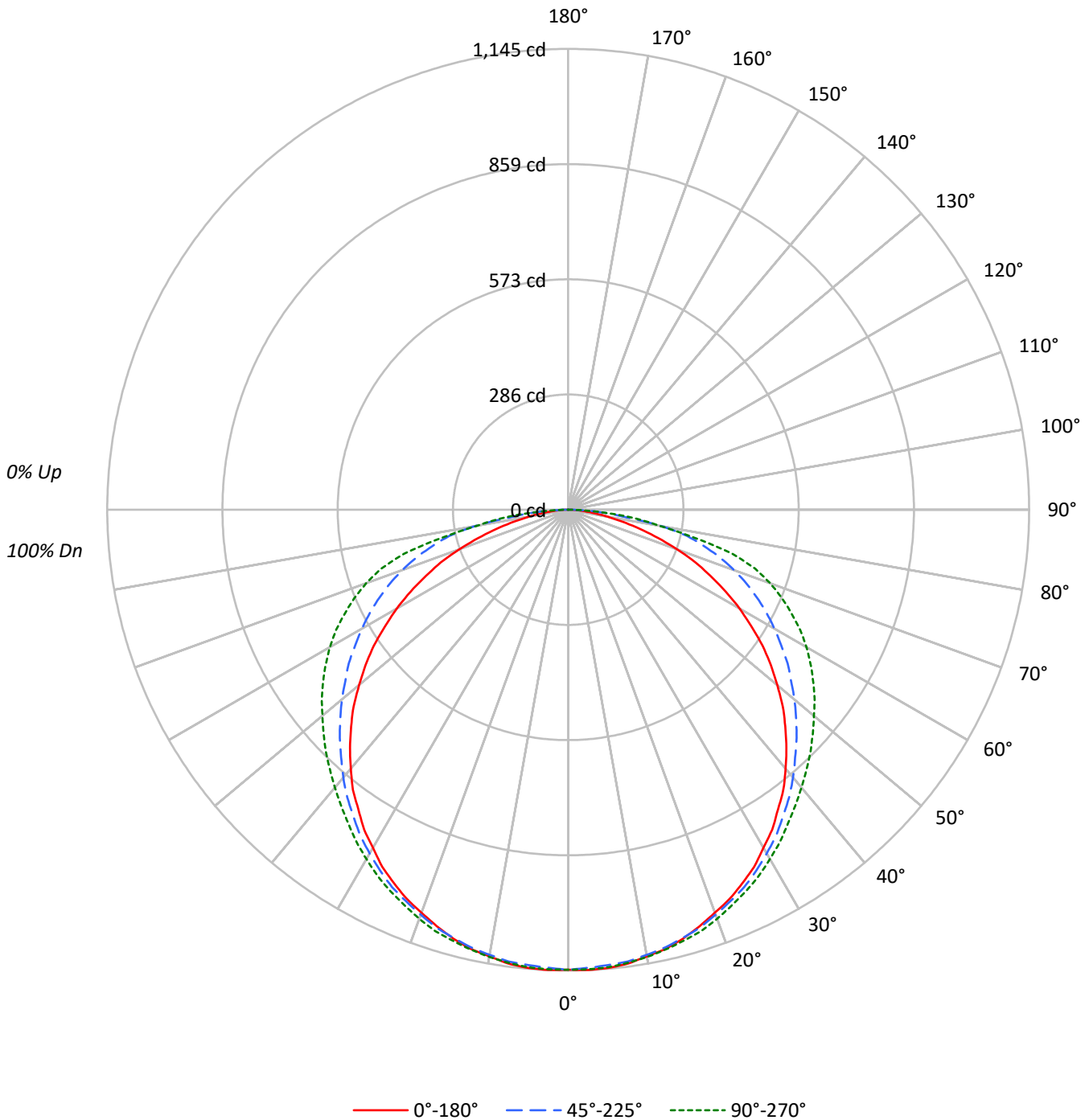
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1538	1538	1538
5°	1544	1534	1541
10°	1539	1534	1542
15°	1537	1534	1544
20°	1525	1533	1549
25°	1520	1536	1552
30°	1507	1532	1557
35°	1492	1528	1563
40°	1475	1526	1583
45°	1451	1526	1619
50°	1419	1536	1668
55°	1383	1560	1742
60°	1324	1591	1838
65°	1240	1647	1951
70°	1127	1723	2099
75°	956	1818	2193
80°	754	1829	1774
85°	557	1391	1558



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.4	3.0
10°-20°	312.0	8.6
20°-30°	477.1	13.1
30°-40°	583.3	16.0
40°-50°	621.7	17.1
50°-60°	594.4	16.4
60°-70°	503.5	13.9
70°-80°	338.4	9.3
80°-90°	95.4	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
0°-30°	897.6	24.7
0°-40°	1480.8	40.7
0°-60°	2696.9	74.2
0°-90°	3634.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3634.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1143	1141	1136	1141	1141	109
15°	1103	1103	1101	1110	1109	311
25°	1024	1028	1035	1044	1046	472
35°	908	916	930	948	952	569
45°	762	775	802	836	851	588
55°	590	611	665	718	743	525
65°	389	429	517	586	613	387
75°	184	251	350	409	422	197
85°	36	74	90	97	101	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1142.9	1142.9	1142.9	1142.9	1142.9
2.5°	1144.7	1144.7	1139.3	1142.9	1142.9
5°	1142.9	1141.1	1135.7	1141.1	1141.1
7.5°	1137.5	1135.7	1132.1	1137.5	1135.7
10°	1126.7	1126.7	1123.1	1128.5	1128.5
12.5°	1117.6	1115.8	1114.0	1121.3	1119.4
15°	1103.2	1103.2	1101.4	1110.4	1108.6
17.5°	1085.2	1087.0	1088.8	1096.0	1097.8
20°	1065.4	1069.0	1070.8	1081.6	1081.6
22.5°	1047.3	1049.1	1052.8	1063.6	1063.6
25°	1023.9	1027.5	1034.7	1043.7	1045.5
27.5°	1000.5	1002.3	1011.3	1023.9	1025.7
30°	969.8	975.2	986.1	1000.5	1002.3
32.5°	942.8	948.2	960.8	975.2	978.8
35°	908.5	915.7	930.2	948.2	951.8
37.5°	877.9	883.3	901.3	921.2	926.6
40°	840.0	850.9	868.9	892.3	901.3
42.5°	802.2	813.0	834.6	865.3	876.1
45°	762.5	775.1	802.2	836.4	850.9
47.5°	722.9	737.3	767.9	807.6	823.8
50°	677.8	695.8	733.7	778.7	796.8
52.5°	634.5	656.2	697.6	748.1	771.5
55°	589.5	611.1	665.2	717.5	742.7
57.5°	539.0	567.8	627.3	686.8	713.9
60°	492.1	519.2	591.3	656.2	683.2
62.5°	441.7	477.7	555.2	623.7	650.8
65°	389.4	429.0	517.4	585.9	612.9
67.5°	342.5	385.8	479.5	548.0	575.0
70°	286.6	340.7	438.0	506.5	533.6
72.5°	234.3	293.8	394.8	461.5	486.7
75°	183.9	250.6	349.7	409.2	421.8
77.5°	137.0	207.3	302.8	328.1	319.1
80°	97.3	165.8	236.1	223.5	228.9
82.5°	63.1	126.2	146.0	165.8	171.3
85°	36.1	73.9	90.1	97.3	100.9
87.5°	16.2	27.0	36.1	36.1	34.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)