

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: P389736

Luminaire Tested: **24CZ2-40VHE-S-UNV-L935-CD1-SDWPD1-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: P389736
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: 24CZ2-40VHE-S-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3503.5 lumens
Efficiency: N/A
Efficacy: 133.7 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

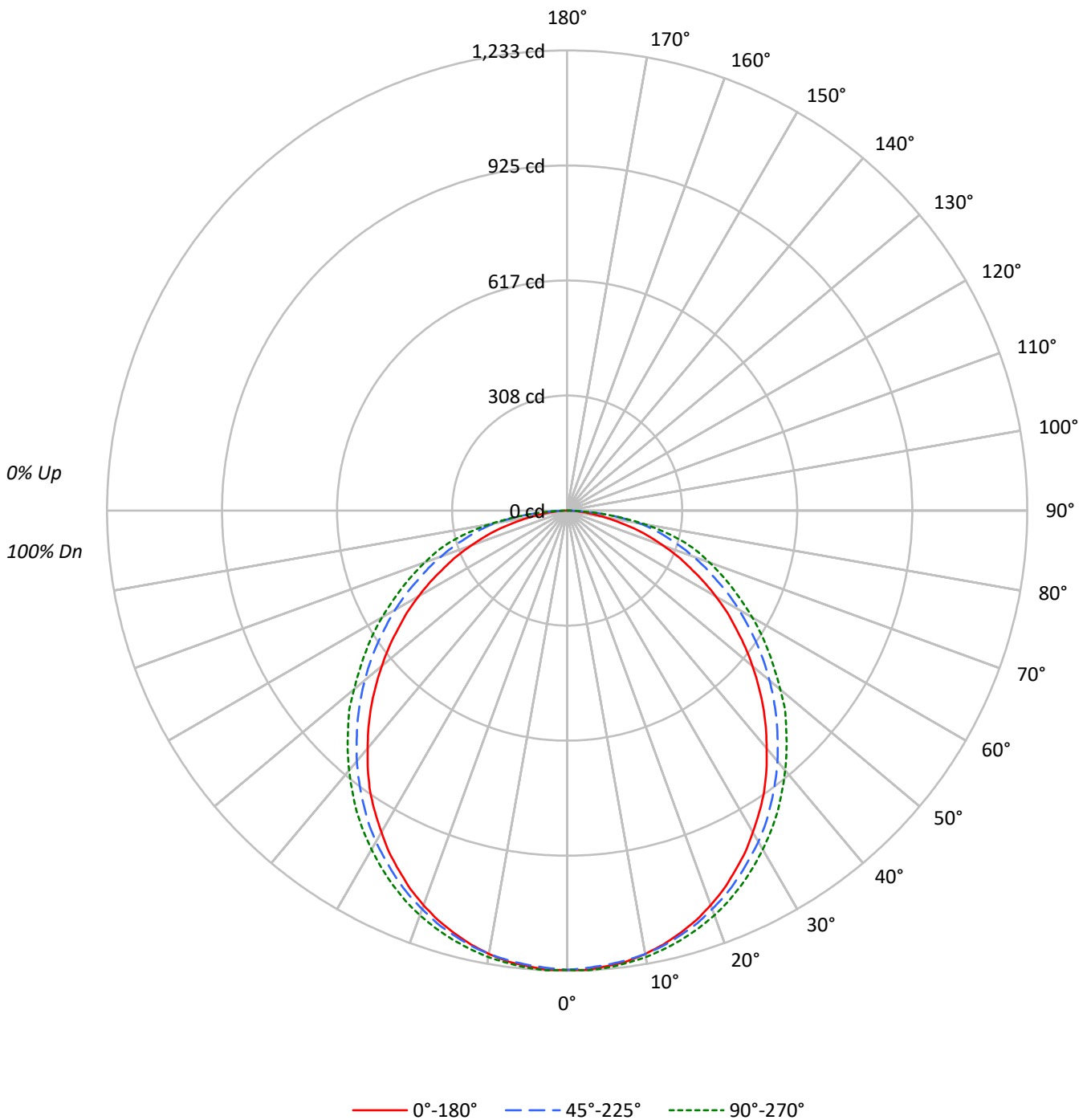
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1656	1656	1656
5°	1655	1650	1661
10°	1648	1648	1660
15°	1632	1640	1657
20°	1611	1627	1652
25°	1581	1611	1642
30°	1546	1592	1629
35°	1512	1566	1616
40°	1460	1540	1597
45°	1412	1510	1580
50°	1358	1482	1561
55°	1297	1454	1545
60°	1237	1431	1542
65°	1159	1407	1552
70°	1072	1414	1594
75°	960	1441	1683
80°	776	1526	1647
85°	584	1340	1306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.5	3.3
10°-20°	332.9	9.5
20°-30°	500.5	14.3
30°-40°	596.2	17.0
40°-50°	610.1	17.4
50°-60°	549.3	15.7
60°-70°	431.4	12.3
70°-80°	280.0	8.0
80°-90°	86.6	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°	949.9	27.1
0°-40°	1546.1	44.1
0°-60°	2705.6	77.2
0°-90°	3503.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3503.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1231	1231	1231	1231	1231	
5°	1225	1228	1222	1229	1230	116
15°	1172	1175	1177	1187	1190	330
25°	1065	1074	1085	1103	1106	491
35°	920	931	954	977	984	574
45°	742	760	794	824	830	572
55°	553	578	620	652	659	496
65°	364	392	442	478	487	362
75°	185	220	277	315	324	195
85°	38	70	87	85	85	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1230.8	1230.8	1230.8	1230.8	1230.8
2.5°	1231.9	1231.9	1226.4	1231.9	1233.0
5°	1225.2	1227.5	1221.9	1228.6	1229.7
7.5°	1218.6	1218.6	1215.2	1221.9	1223.0
10°	1206.3	1207.4	1206.3	1214.1	1215.2
12.5°	1190.7	1193.0	1194.1	1201.9	1203.0
15°	1171.8	1175.2	1177.4	1187.4	1189.6
17.5°	1150.7	1154.0	1159.6	1170.7	1172.9
20°	1125.1	1129.5	1136.2	1150.7	1154.0
22.5°	1097.3	1101.7	1112.8	1126.2	1131.8
25°	1065.0	1073.9	1085.0	1102.8	1106.2
27.5°	1032.7	1040.5	1055.0	1073.9	1078.3
30°	994.9	1007.1	1024.9	1043.8	1048.3
32.5°	958.2	970.4	991.5	1011.6	1017.1
35°	920.3	931.4	953.7	977.1	983.8
37.5°	876.9	891.4	915.9	939.2	945.9
40°	831.3	849.1	876.9	901.4	909.2
42.5°	787.9	806.8	834.6	861.3	870.2
45°	742.3	760.1	793.5	823.5	830.2
47.5°	695.5	715.6	751.2	781.2	792.3
50°	648.8	669.9	707.8	738.9	745.6
52.5°	602.0	624.3	664.4	697.8	701.1
55°	553.1	577.6	619.9	652.1	658.8
57.5°	508.6	529.7	575.3	608.7	616.5
60°	459.6	483.0	531.9	563.1	573.1
62.5°	412.9	437.3	488.5	519.7	528.6
65°	363.9	391.7	441.8	478.5	487.4
67.5°	321.6	348.3	401.7	437.3	446.2
70°	272.6	302.7	359.4	396.2	405.1
72.5°	230.4	261.5	318.3	353.9	367.2
75°	184.7	220.3	277.1	314.9	323.8
77.5°	140.2	181.4	239.3	268.2	268.2
80°	100.2	143.6	197.0	210.3	212.6
82.5°	65.7	107.9	145.8	144.7	144.7
85°	37.8	70.1	86.8	84.6	84.6
87.5°	14.5	28.9	31.2	31.2	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)