

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: P388802

Luminaire Tested: **24CZ2-40VHE-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: P388802
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: 24CZ2-40VHE-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

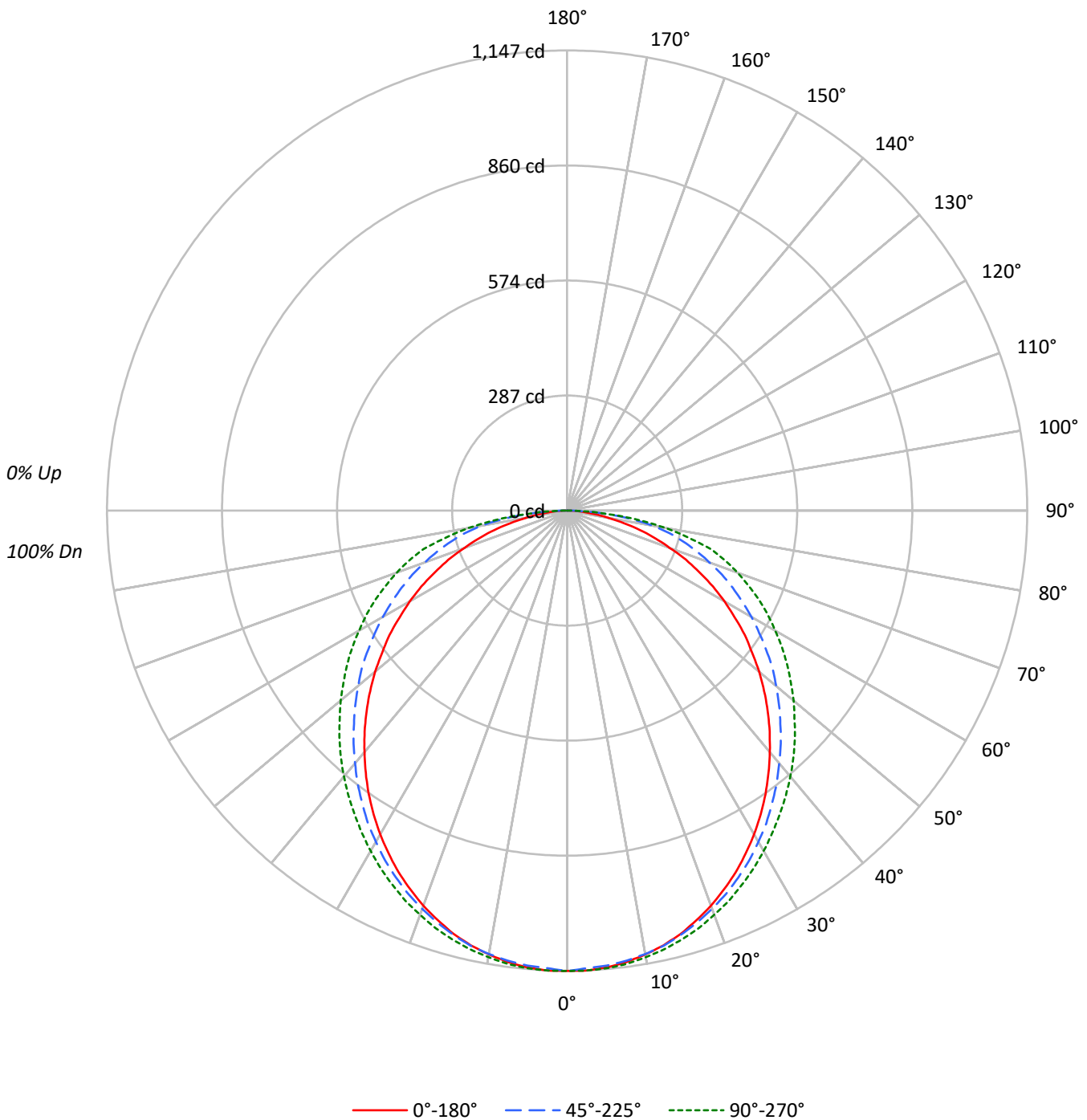
Lumens per Lamp: N/A
Luminaire Lumens: 3417.4 lumens
Efficiency: N/A
Efficacy: 130.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	1544	1544	1544
5°	1543	1537	1547
10°	1535	1533	1544
15°	1522	1525	1541
20°	1501	1512	1535
25°	1476	1499	1529
30°	1448	1481	1522
35°	1416	1463	1517
40°	1380	1444	1521
45°	1345	1430	1528
50°	1308	1423	1542
55°	1268	1421	1571
60°	1218	1427	1611
65°	1155	1449	1681
70°	1072	1485	1777
75°	978	1560	1927
80°	804	1679	1926
85°	616	1550	1655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.5	3.2
10°-20°	309.8	9.1
20°-30°	466.2	13.6
30°-40°	558.7	16.3
40°-50°	582.2	17.0
50°-60°	541.7	15.9
60°-70°	446.1	13.1
70°-80°	303.8	8.9
80°-90°	100.3	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°	884.5	25.9
0°-40°	1443.2	42.2
0°-60°	2567.1	75.1
0°-90°	3417.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3417.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1143	1143	1138	1144	1145	108
15°	1093	1094	1095	1105	1106	308
25°	994	999	1009	1026	1030	458
35°	862	872	891	915	924	539
45°	707	722	752	789	803	545
55°	541	559	606	654	670	482
65°	363	394	455	509	528	360
75°	188	230	300	354	371	198
85°	40	78	100	107	107	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1147.4	1147.4	1147.4	1147.4	1147.4
2.5°	1147.4	1147.4	1141.7	1147.4	1147.4
5°	1142.8	1142.8	1138.3	1144.0	1145.1
7.5°	1134.8	1136.0	1131.4	1138.3	1139.4
10°	1123.4	1124.6	1122.3	1129.1	1130.3
12.5°	1109.7	1110.9	1110.9	1118.9	1120.0
15°	1092.6	1093.8	1094.9	1105.2	1106.3
17.5°	1071.0	1074.4	1076.7	1089.2	1091.5
20°	1048.2	1051.6	1056.1	1069.8	1072.1
22.5°	1021.9	1026.5	1034.5	1049.3	1052.7
25°	994.5	999.1	1009.4	1026.5	1029.9
27.5°	963.8	970.6	983.1	1001.4	1006.0
30°	931.8	938.7	953.5	972.9	979.7
32.5°	897.6	906.7	923.8	945.5	952.3
35°	862.2	872.5	890.8	914.7	923.8
37.5°	824.6	836.0	857.7	883.9	895.3
40°	785.8	799.5	822.3	853.1	865.7
42.5°	747.1	759.6	788.1	821.2	834.9
45°	707.1	722.0	751.6	789.3	802.9
47.5°	666.1	680.9	716.3	756.2	768.7
50°	625.0	639.8	679.8	722.0	736.8
52.5°	580.5	599.9	645.5	687.7	702.6
55°	540.6	558.9	605.6	653.5	669.5
57.5°	495.0	516.7	568.0	618.2	635.3
60°	452.8	475.6	530.3	581.7	598.8
62.5°	409.5	434.5	492.7	545.2	564.6
65°	362.7	393.5	455.1	508.7	528.1
67.5°	320.5	352.4	417.4	472.2	489.3
70°	272.6	311.4	377.5	432.3	451.7
72.5°	231.5	270.3	339.9	393.5	412.9
75°	188.2	230.4	300.0	353.6	370.7
77.5°	144.8	191.6	261.2	302.2	307.9
80°	103.8	152.8	216.7	240.7	248.6
82.5°	73.0	117.5	159.7	175.6	180.2
85°	39.9	77.6	100.4	107.2	107.2
87.5°	17.1	33.1	39.9	41.1	42.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)