

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: P388619

Luminaire Tested: **24CZ2-40-SQR-UNV-L950-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: P388619
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-SQR-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

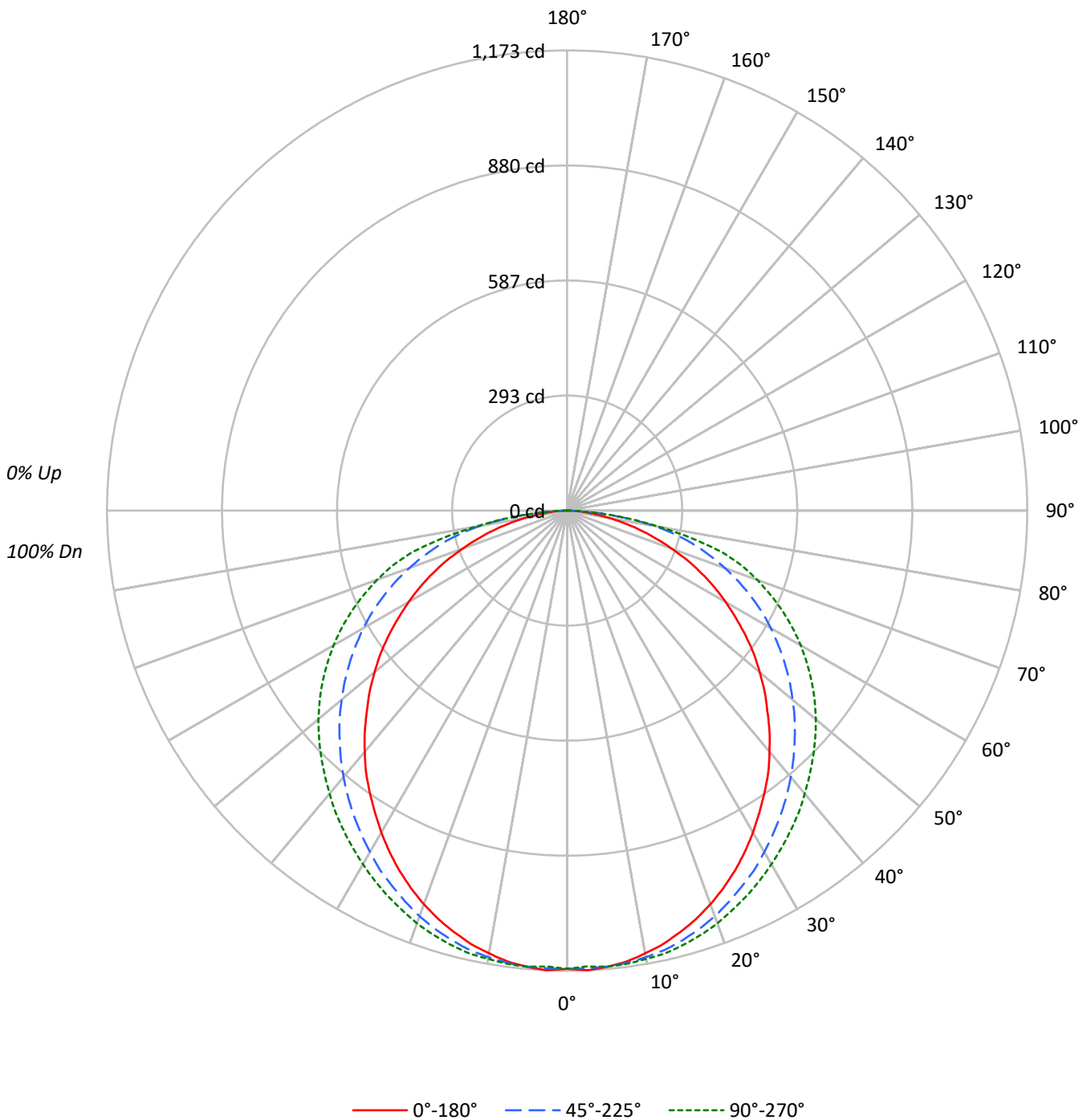
Lumens per Lamp: N/A
Luminaire Lumens: 3653.8 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.2
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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1571	1571	1571
5°	1577	1576	1576
10°	1566	1579	1586
15°	1550	1580	1597
20°	1529	1576	1603
25°	1503	1567	1609
30°	1471	1561	1618
35°	1441	1558	1633
40°	1409	1558	1655
45°	1373	1561	1687
50°	1341	1571	1733
55°	1302	1588	1786
60°	1256	1614	1851
65°	1202	1644	1928
70°	1115	1685	2027
75°	1010	1744	2120
80°	851	1748	1823
85°	651	1323	1323



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.9	3.0
10°-20°	319.0	8.7
20°-30°	484.5	13.3
30°-40°	589.3	16.1
40°-50°	627.4	17.2
50°-60°	597.6	16.4
60°-70°	499.8	13.7
70°-80°	333.2	9.1
80°-90°	92.2	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°	914.3	25.0
0°-40°	1503.6	41.2
0°-60°	2728.7	74.7
0°-90°	3653.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3653.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1168	1161	1167	1167	1167	111
15°	1112	1115	1134	1143	1146	314
25°	1012	1026	1056	1074	1084	466
35°	877	902	948	980	994	549
45°	722	760	820	866	887	558
55°	555	603	677	736	761	496
65°	378	433	516	580	606	373
75°	194	256	335	392	408	206
85°	42	78	86	84	86	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1167.9	1167.9	1167.9	1167.9	1167.9
2.5°	1172.8	1164.3	1167.9	1167.9	1163.1
5°	1167.9	1160.7	1166.7	1166.7	1166.7
7.5°	1159.5	1153.5	1163.1	1165.5	1165.5
10°	1146.2	1143.8	1155.9	1159.5	1160.7
12.5°	1131.7	1130.5	1147.4	1152.2	1155.9
15°	1112.4	1114.8	1134.1	1142.6	1146.2
17.5°	1091.9	1096.7	1118.5	1130.5	1134.1
20°	1067.8	1075.0	1100.4	1112.4	1119.7
22.5°	1041.2	1052.1	1078.6	1093.1	1101.6
25°	1012.3	1025.6	1055.7	1073.8	1083.5
27.5°	980.9	997.8	1032.8	1053.3	1063.0
30°	947.1	966.4	1005.0	1029.2	1041.2
32.5°	912.1	935.1	977.3	1003.8	1018.3
35°	877.2	902.5	948.3	979.7	994.2
37.5°	842.2	867.5	918.2	952.0	970.1
40°	802.4	832.5	886.8	924.2	942.3
42.5°	763.7	796.3	854.2	895.3	914.6
45°	721.5	760.1	820.4	866.3	886.8
47.5°	682.9	721.5	786.7	834.9	857.9
50°	640.7	681.7	750.5	803.6	827.7
52.5°	599.7	641.9	714.3	771.0	795.1
55°	555.0	603.3	676.9	736.0	761.3
57.5°	510.4	562.2	638.3	699.8	725.1
60°	466.9	520.0	599.7	661.2	687.7
62.5°	423.5	476.6	559.8	622.6	647.9
65°	377.6	433.1	516.4	580.3	605.7
67.5°	331.8	389.7	473.0	536.9	561.0
70°	283.5	345.1	428.3	491.1	515.2
72.5°	238.9	300.4	382.5	444.0	466.9
75°	194.3	255.8	335.4	392.1	407.8
77.5°	150.8	212.4	283.5	320.9	324.6
80°	109.8	167.7	225.6	236.5	235.3
82.5°	73.6	125.5	155.6	156.9	160.5
85°	42.2	78.4	85.7	84.5	85.7
87.5°	16.9	27.8	24.1	18.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)