

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: P388616

Luminaire Tested: **24CZ2-40-SQR-UNV-L940-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: P388616
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-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

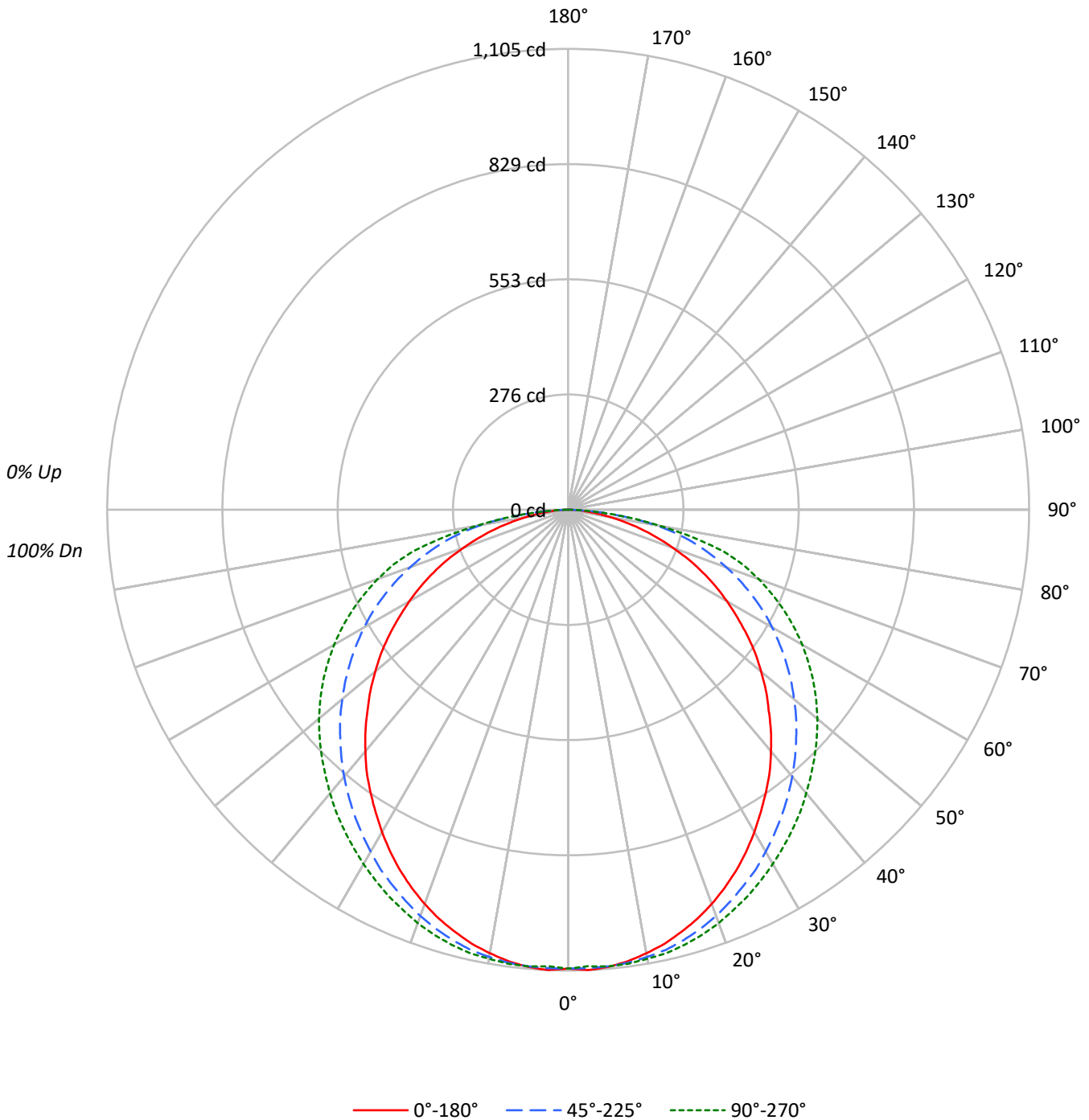
Lumens per Lamp: N/A
Luminaire Lumens: 3442.3 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1480	1480	1480
5°	1486	1485	1485
10°	1475	1488	1494
15°	1460	1488	1504
20°	1440	1484	1510
25°	1416	1477	1515
30°	1386	1471	1524
35°	1357	1467	1538
40°	1328	1467	1559
45°	1293	1471	1590
50°	1263	1480	1632
55°	1227	1496	1683
60°	1184	1520	1743
65°	1133	1549	1817
70°	1051	1587	1910
75°	951	1643	1997
80°	801	1647	1718
85°	614	1246	1246



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	3.0
10°-20°	300.5	8.7
20°-30°	456.4	13.3
30°-40°	555.2	16.1
40°-50°	591.1	17.2
50°-60°	563.0	16.4
60°-70°	470.8	13.7
70°-80°	313.9	9.1
80°-90°	86.9	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°	861.4	25.0
0°-40°	1416.6	41.2
0°-60°	2570.7	74.7
0°-90°	3442.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3442.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1100	1094	1099	1099	1099	104
15°	1048	1050	1068	1076	1080	296
25°	954	966	995	1012	1021	439
35°	826	850	893	923	937	517
45°	680	716	773	816	836	525
55°	523	568	638	693	717	467
65°	356	408	486	547	571	352
75°	183	241	316	369	384	194
85°	40	74	81	80	81	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1100.3	1100.3	1100.3	1100.3	1100.3
2.5°	1104.9	1096.9	1100.3	1100.3	1095.8
5°	1100.3	1093.5	1099.2	1099.2	1099.2
7.5°	1092.4	1086.7	1095.8	1098.1	1098.1
10°	1079.9	1077.6	1089.0	1092.4	1093.5
12.5°	1066.2	1065.1	1081.0	1085.5	1089.0
15°	1048.0	1050.3	1068.5	1076.5	1079.9
17.5°	1028.7	1033.3	1053.7	1065.1	1068.5
20°	1006.0	1012.8	1036.7	1048.0	1054.9
22.5°	981.0	991.2	1016.2	1029.9	1037.8
25°	953.7	966.2	994.6	1011.7	1020.8
27.5°	924.1	940.1	973.0	992.3	1001.4
30°	892.3	910.5	946.9	969.6	981.0
32.5°	859.3	880.9	920.7	945.7	959.4
35°	826.4	850.3	893.4	923.0	936.6
37.5°	793.4	817.3	865.0	896.9	913.9
40°	755.9	784.3	835.5	870.7	887.8
42.5°	719.5	750.2	804.8	843.4	861.6
45°	679.7	716.1	773.0	816.2	835.5
47.5°	643.4	679.7	741.1	786.6	808.2
50°	603.6	642.2	707.0	757.0	779.8
52.5°	564.9	604.7	672.9	726.4	749.1
55°	522.9	568.4	637.7	693.4	717.3
57.5°	480.8	529.7	601.3	659.3	683.2
60°	439.9	489.9	564.9	622.9	647.9
62.5°	399.0	449.0	527.4	586.5	610.4
65°	355.8	408.1	486.5	546.8	570.6
67.5°	312.6	367.2	445.6	505.8	528.6
70°	267.1	325.1	403.5	462.6	485.4
72.5°	225.1	283.0	360.3	418.3	439.9
75°	183.0	241.0	316.0	369.4	384.2
77.5°	142.1	200.1	267.1	302.4	305.8
80°	103.4	158.0	212.6	222.8	221.7
82.5°	69.3	118.2	146.6	147.8	151.2
85°	39.8	73.9	80.7	79.6	80.7
87.5°	15.9	26.1	22.7	17.1	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)