

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: P388904

Luminaire Tested: **24CZ2-60-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: P388904
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: 24CZ2-60-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

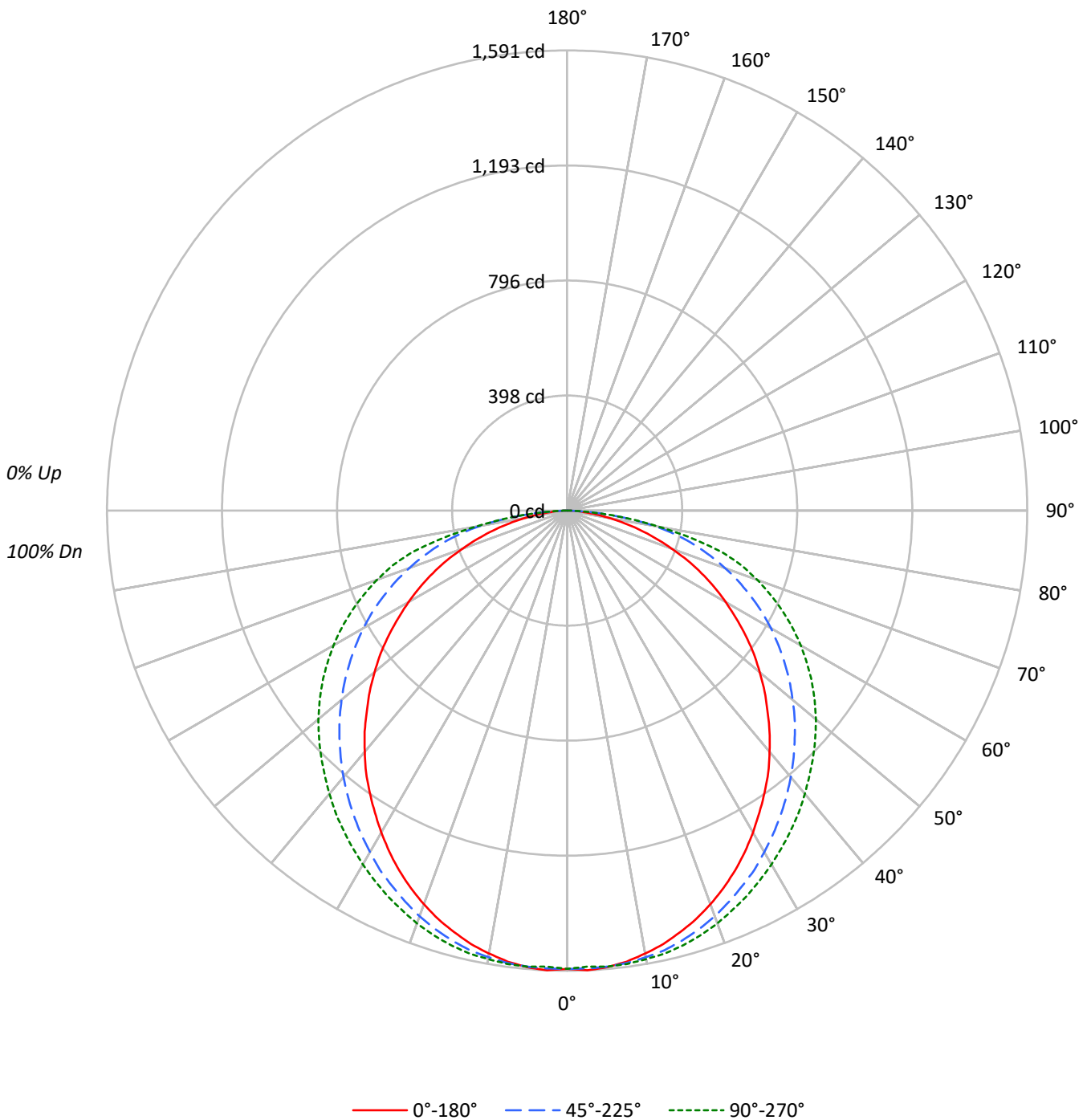
Lumens per Lamp: N/A
Luminaire Lumens: 4956.8 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 55.6
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°	2132	2132	2132
5°	2140	2138	2138
10°	2125	2142	2151
15°	2102	2143	2166
20°	2074	2137	2175
25°	2039	2126	2182
30°	1996	2118	2195
35°	1955	2113	2215
40°	1912	2113	2245
45°	1862	2118	2289
50°	1819	2131	2350
55°	1766	2154	2423
60°	1704	2189	2511
65°	1631	2230	2616
70°	1513	2286	2749
75°	1370	2365	2876
80°	1154	2372	2473
85°	885	1794	1794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.4	3.0
10°-20°	432.7	8.7
20°-30°	657.3	13.3
30°-40°	799.5	16.1
40°-50°	851.2	17.2
50°-60°	810.7	16.4
60°-70°	678.0	13.7
70°-80°	452.0	9.1
80°-90°	125.1	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°	1240.4	25.0
0°-40°	2039.8	41.2
0°-60°	3701.7	74.7
0°-90°	4956.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4956.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1584	1584	1584	1584	1584	
5°	1584	1575	1583	1583	1583	150
15°	1509	1512	1539	1550	1555	426
25°	1373	1391	1432	1457	1470	632
35°	1190	1224	1286	1329	1349	745
45°	979	1031	1113	1175	1203	757
55°	753	818	918	998	1033	673
65°	512	588	701	787	822	506
75°	264	347	455	532	553	279
85°	57	106	116	115	116	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1584.4	1584.4	1584.4	1584.4	1584.4
2.5°	1591.0	1579.5	1584.4	1584.4	1577.9
5°	1584.4	1574.6	1582.8	1582.8	1582.8
7.5°	1573.0	1564.8	1577.9	1581.2	1581.2
10°	1555.0	1551.7	1568.1	1573.0	1574.6
12.5°	1535.3	1533.7	1556.6	1563.2	1568.1
15°	1509.1	1512.4	1538.6	1550.1	1555.0
17.5°	1481.3	1487.9	1517.3	1533.7	1538.6
20°	1448.6	1458.4	1492.8	1509.1	1519.0
22.5°	1412.6	1427.3	1463.3	1483.0	1494.4
25°	1373.3	1391.3	1432.2	1456.8	1469.9
27.5°	1330.7	1353.6	1401.1	1428.9	1442.0
30°	1284.9	1311.1	1363.5	1396.2	1412.6
32.5°	1237.4	1268.5	1325.8	1361.8	1381.5
35°	1190.0	1224.3	1286.5	1329.1	1348.7
37.5°	1142.5	1176.9	1245.6	1291.4	1316.0
40°	1088.5	1129.4	1203.1	1253.8	1278.4
42.5°	1036.1	1080.3	1158.9	1214.5	1240.7
45°	978.8	1031.2	1113.0	1175.2	1203.1
47.5°	926.4	978.8	1067.2	1132.7	1163.8
50°	869.1	924.8	1018.1	1090.1	1122.9
52.5°	813.5	870.8	969.0	1045.9	1078.7
55°	752.9	818.4	918.3	998.5	1032.8
57.5°	692.4	762.8	865.9	949.4	983.7
60°	633.4	705.5	813.5	897.0	933.0
62.5°	574.5	646.5	759.5	844.6	879.0
65°	512.3	587.6	700.6	787.3	821.7
67.5°	450.1	528.7	641.6	728.4	761.1
70°	384.7	468.1	581.1	666.2	698.9
72.5°	324.1	407.6	518.9	602.3	633.4
75°	263.5	347.0	455.0	532.0	553.2
77.5°	204.6	288.1	384.7	435.4	440.3
80°	148.9	227.5	306.1	320.8	319.2
82.5°	99.8	170.2	211.1	212.8	217.7
85°	57.3	106.4	116.2	114.6	116.2
87.5°	22.9	37.6	32.7	24.6	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)