

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: P388609

Luminaire Tested: **24CZ2-40-SQR-UNV-L930-CD1-SWPD1-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: P388609
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-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3283.6 lumens
Efficiency: N/A
Efficacy: 90.7 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

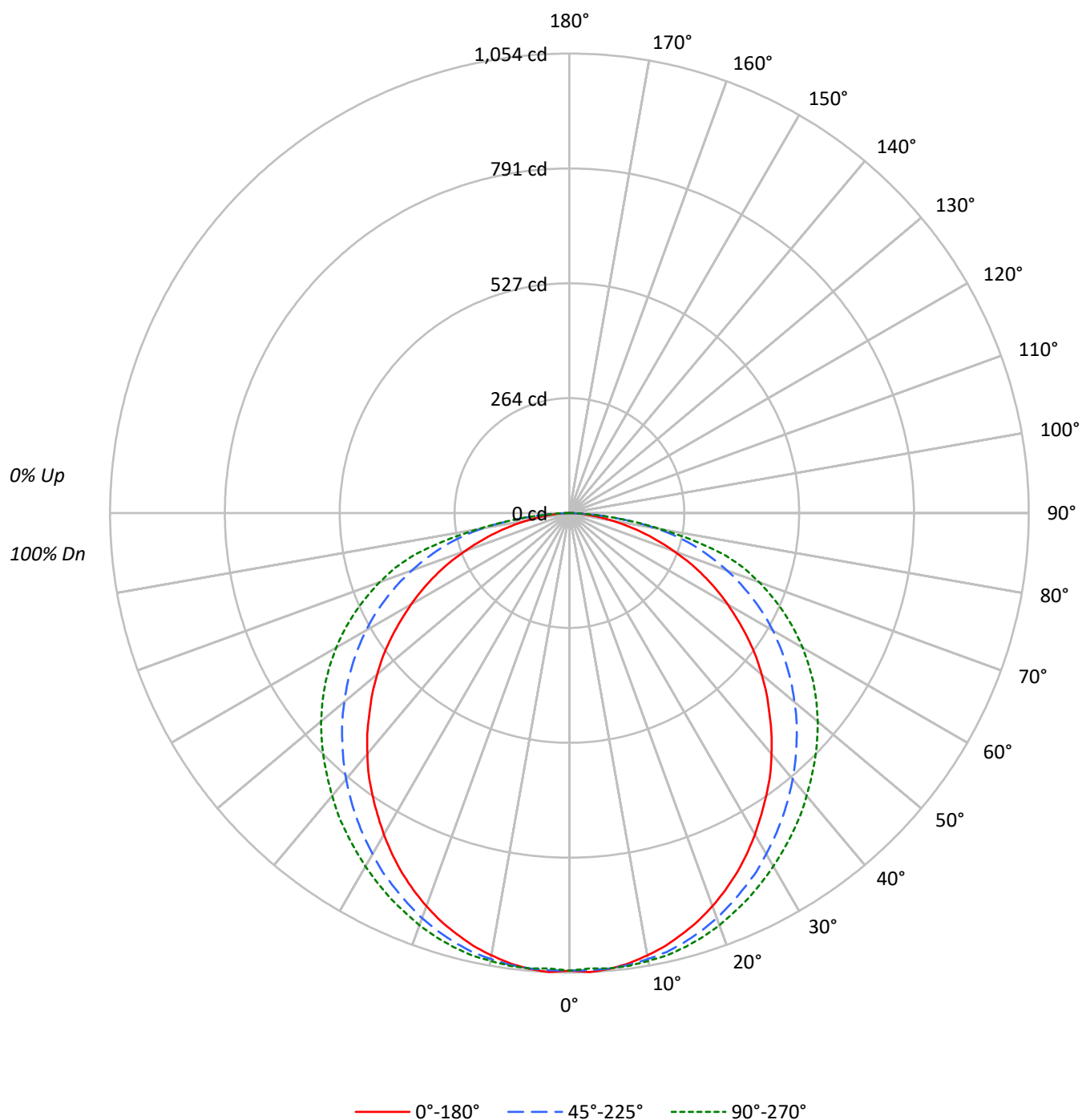
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1412	1412	1412
5°	1418	1416	1416
10°	1407	1419	1425
15°	1393	1420	1435
20°	1374	1416	1441
25°	1351	1409	1446
30°	1322	1403	1454
35°	1295	1400	1468
40°	1267	1400	1487
45°	1234	1403	1517
50°	1205	1412	1557
55°	1170	1427	1605
60°	1129	1450	1663
65°	1081	1478	1733
70°	1002	1514	1821
75°	908	1567	1905
80°	765	1571	1638
85°	587	1189	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	3.0
10°-20°	286.6	8.7
20°-30°	435.4	13.3
30°-40°	529.6	16.1
40°-50°	563.9	17.2
50°-60°	537.0	16.4
60°-70°	449.1	13.7
70°-80°	299.4	9.1
80°-90°	82.9	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°	821.7	25.0
0°-40°	1351.3	41.2
0°-60°	2452.2	74.7
0°-90°	3283.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3283.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1050	1043	1048	1048	1048	100
15°	1000	1002	1019	1027	1030	282
25°	910	922	949	965	974	419
35°	788	811	852	880	894	493
45°	648	683	737	778	797	501
55°	499	542	608	661	684	446
65°	339	389	464	522	544	335
75°	175	230	301	352	366	185
85°	38	70	77	76	77	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1049.6	1049.6	1049.6	1049.6	1049.6
2.5°	1053.9	1046.3	1049.6	1049.6	1045.3
5°	1049.6	1043.1	1048.5	1048.5	1048.5
7.5°	1042.0	1036.6	1045.3	1047.4	1047.4
10°	1030.1	1027.9	1038.8	1042.0	1043.1
12.5°	1017.1	1016.0	1031.2	1035.5	1038.8
15°	999.7	1001.9	1019.2	1026.8	1030.1
17.5°	981.3	985.6	1005.1	1016.0	1019.2
20°	959.6	966.1	988.9	999.7	1006.2
22.5°	935.7	945.5	969.4	982.4	990.0
25°	909.7	921.7	948.8	965.0	973.7
27.5°	881.5	896.7	928.2	946.6	955.3
30°	851.2	868.5	903.2	924.9	935.7
32.5°	819.7	840.3	878.3	902.1	915.1
35°	788.3	811.1	852.3	880.4	893.5
37.5°	756.8	779.6	825.1	855.5	871.8
40°	721.1	748.2	797.0	830.6	846.8
42.5°	686.4	715.6	767.7	804.5	821.9
45°	648.4	683.1	737.3	778.5	797.0
47.5°	613.7	648.4	707.0	750.3	770.9
50°	575.8	612.6	674.4	722.1	743.8
52.5°	538.9	576.8	641.9	692.9	714.6
55°	498.8	542.1	608.3	661.4	684.2
57.5°	458.7	505.3	573.6	628.9	651.7
60°	419.6	467.3	538.9	594.2	618.0
62.5°	380.6	428.3	503.1	559.5	582.3
65°	339.4	389.3	464.1	521.5	544.3
67.5°	298.2	350.2	425.0	482.5	504.2
70°	254.8	310.1	384.9	441.3	463.0
72.5°	214.7	270.0	343.7	399.0	419.6
75°	174.6	229.9	301.4	352.4	366.5
77.5°	135.5	190.8	254.8	288.4	291.7
80°	98.7	150.7	202.8	212.5	211.4
82.5°	66.1	112.8	139.9	141.0	144.2
85°	38.0	70.5	77.0	75.9	77.0
87.5°	15.2	24.9	21.7	16.3	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)