

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: P388757

Luminaire Tested: **24CZ2-50-SQR-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: P388757
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: 24CZ2-50-SQR-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

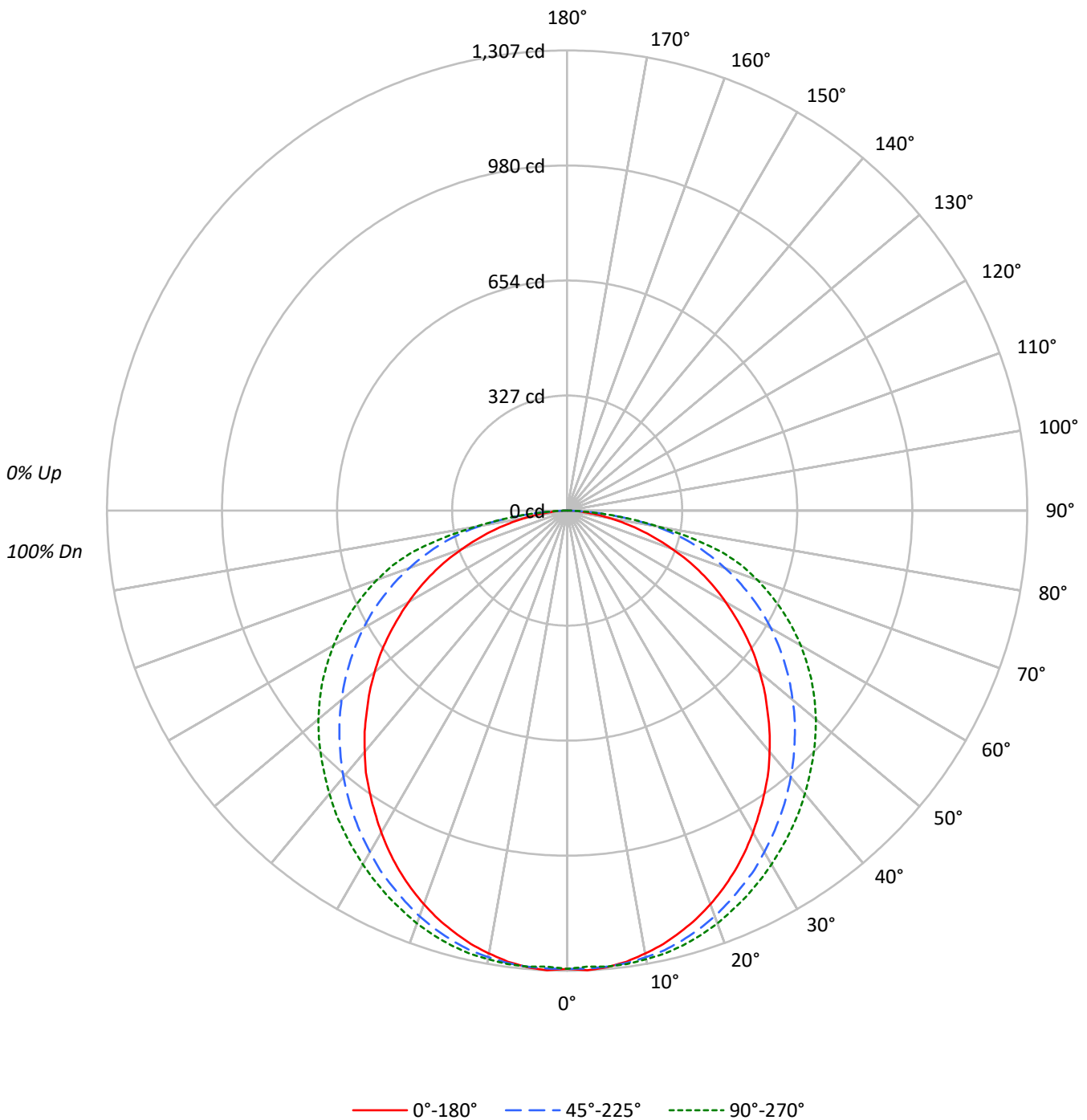
Lumens per Lamp: N/A
Luminaire Lumens: 4072.1 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.6
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°	1751	1751	1751
5°	1758	1756	1756
10°	1745	1760	1767
15°	1727	1761	1779
20°	1704	1756	1787
25°	1675	1747	1793
30°	1640	1740	1803
35°	1606	1736	1820
40°	1571	1736	1845
45°	1530	1740	1881
50°	1495	1751	1931
55°	1451	1770	1990
60°	1400	1798	2063
65°	1340	1832	2149
70°	1243	1878	2259
75°	1125	1943	2363
80°	948	1949	2032
85°	727	1474	1474



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	3.0
10°-20°	355.5	8.7
20°-30°	540.0	13.3
30°-40°	656.8	16.1
40°-50°	699.3	17.2
50°-60°	666.0	16.4
60°-70°	557.0	13.7
70°-80°	371.3	9.1
80°-90°	102.8	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°	1019.0	25.0
0°-40°	1675.8	41.2
0°-60°	3041.0	74.7
0°-90°	4072.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4072.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1302	1294	1300	1300	1300	123
15°	1240	1242	1264	1273	1277	350
25°	1128	1143	1177	1197	1208	519
35°	978	1006	1057	1092	1108	612
45°	804	847	914	966	988	622
55°	618	672	754	820	848	553
65°	421	483	576	647	675	416
75°	216	285	374	437	454	229
85°	47	87	96	94	96	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1301.6	1301.6	1301.6	1301.6	1301.6
2.5°	1307.0	1297.6	1301.6	1301.6	1296.3
5°	1301.6	1293.6	1300.3	1300.3	1300.3
7.5°	1292.2	1285.5	1296.3	1299.0	1299.0
10°	1277.4	1274.7	1288.2	1292.2	1293.6
12.5°	1261.3	1260.0	1278.8	1284.2	1288.2
15°	1239.8	1242.5	1264.0	1273.4	1277.4
17.5°	1216.9	1222.3	1246.5	1260.0	1264.0
20°	1190.0	1198.1	1226.3	1239.8	1247.9
22.5°	1160.5	1172.6	1202.1	1218.3	1227.7
25°	1128.2	1143.0	1176.6	1196.8	1207.5
27.5°	1093.2	1112.0	1151.0	1173.9	1184.7
30°	1055.6	1077.1	1120.1	1147.0	1160.5
32.5°	1016.6	1042.1	1089.2	1118.8	1134.9
35°	977.6	1005.8	1056.9	1091.9	1108.0
37.5°	938.6	966.8	1023.3	1060.9	1081.1
40°	894.2	927.8	988.3	1030.0	1050.2
42.5°	851.2	887.5	952.0	997.7	1019.3
45°	804.1	847.1	914.4	965.5	988.3
47.5°	761.1	804.1	876.7	930.5	956.1
50°	714.0	759.7	836.4	895.6	922.4
52.5°	668.3	715.4	796.0	859.2	886.1
55°	618.5	672.3	754.4	820.2	848.5
57.5°	568.8	626.6	711.3	779.9	808.1
60°	520.4	579.6	668.3	736.9	766.5
62.5°	472.0	531.1	623.9	693.9	722.1
65°	420.9	482.7	575.5	646.8	675.0
67.5°	369.8	434.3	527.1	598.4	625.3
70°	316.0	384.6	477.4	547.3	574.2
72.5°	266.2	334.8	426.3	494.8	520.4
75°	216.5	285.1	373.8	437.0	454.5
77.5°	168.1	236.7	316.0	357.7	361.7
80°	122.4	186.9	251.5	263.6	262.2
82.5°	82.0	139.8	173.5	174.8	178.8
85°	47.1	87.4	95.5	94.1	95.5
87.5°	18.8	30.9	26.9	20.2	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)