

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: P230046

Luminaire Tested: **24CZ-LD5-50-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-50-S-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4489.0 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

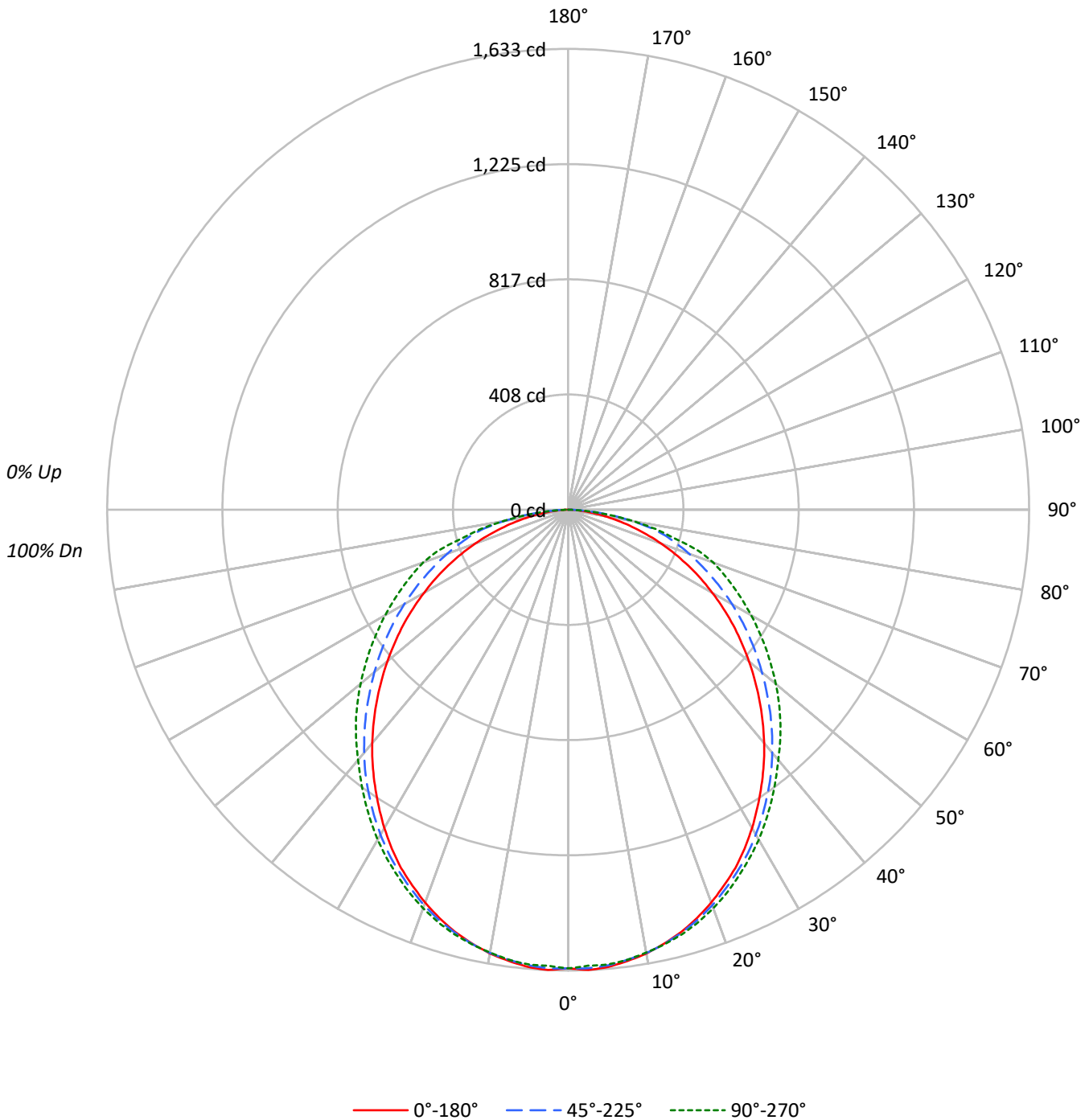
Input Watts (W): 40.68
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2187	2187	2187
5°	2197	2189	2185
10°	2181	2179	2177
15°	2158	2162	2170
20°	2122	2137	2151
25°	2080	2102	2124
30°	2024	2065	2098
35°	1960	2022	2063
40°	1897	1975	2033
45°	1825	1924	2024
50°	1751	1876	2010
55°	1675	1836	2004
60°	1588	1805	2014
65°	1493	1783	2054
70°	1375	1792	2151
75°	1219	1856	2004
80°	1018	1759	1805
85°	761	1406	1291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.6	3.4
10°-20°	437.0	9.7
20°-30°	651.2	14.5
30°-40°	766.6	17.1
40°-50°	779.0	17.4
50°-60°	700.4	15.6
60°-70°	553.3	12.3
70°-80°	351.0	7.8
80°-90°	96.9	2.2
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°	1241.8	27.7
0°-40°	2008.4	44.7
0°-60°	3487.8	77.7
0°-90°	4489.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4489.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1625	1625	1625	1625	1625	
5°	1627	1613	1621	1618	1618	154
15°	1549	1542	1552	1556	1558	436
25°	1401	1400	1416	1425	1431	644
35°	1193	1201	1231	1244	1256	747
45°	959	972	1011	1041	1064	740
55°	714	732	783	834	854	638
65°	469	493	560	621	645	465
75°	234	275	357	388	385	250
85°	49	85	91	84	84	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1625.1	1625.1	1625.1	1625.1	1625.1
2.5°	1632.6	1620.6	1626.6	1623.6	1617.6
5°	1626.6	1613.2	1620.6	1617.6	1617.6
7.5°	1613.2	1602.7	1608.7	1607.2	1608.7
10°	1596.7	1586.3	1595.2	1595.2	1593.7
12.5°	1574.3	1565.4	1575.8	1575.8	1577.3
15°	1548.9	1541.5	1551.9	1556.4	1557.9
17.5°	1517.6	1510.1	1523.5	1528.0	1532.5
20°	1481.7	1478.7	1492.2	1496.6	1502.6
22.5°	1441.4	1441.4	1454.8	1460.8	1469.8
25°	1401.1	1399.6	1416.0	1425.0	1430.9
27.5°	1353.3	1354.7	1375.7	1384.6	1392.1
30°	1302.5	1305.5	1329.4	1339.8	1350.3
32.5°	1248.7	1254.7	1281.6	1293.5	1304.0
35°	1193.4	1200.9	1230.8	1244.2	1256.2
37.5°	1138.2	1148.6	1180.0	1193.4	1206.9
40°	1079.9	1088.9	1124.7	1141.2	1157.6
42.5°	1020.2	1032.1	1068.0	1091.9	1111.3
45°	958.9	972.4	1011.2	1041.1	1063.5
47.5°	897.7	915.6	953.0	993.3	1012.7
50°	836.4	854.4	896.2	941.0	960.4
52.5°	773.7	791.6	839.4	885.7	906.7
55°	714.0	731.9	782.7	833.5	854.4
57.5°	651.2	670.7	727.4	779.7	800.6
60°	590.0	609.4	670.7	725.9	748.3
62.5°	530.2	551.2	615.4	673.6	696.0
65°	469.0	492.9	560.1	621.4	645.3
67.5°	409.3	436.1	506.4	570.6	596.0
70°	349.5	380.9	455.6	521.3	546.7
72.5°	291.3	325.6	404.8	470.5	483.9
75°	234.5	274.8	357.0	388.4	385.4
77.5°	180.7	225.5	303.2	309.2	318.1
80°	131.4	180.7	227.0	239.0	233.0
82.5°	86.6	135.9	162.8	156.8	155.3
85°	49.3	85.1	91.1	83.6	83.6
87.5°	20.9	34.4	29.9	22.4	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)