

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: P230048

Luminaire Tested: **24CZ-LD5-55-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230048
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-LD5-55-S-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4651.0 lumens
Efficiency: N/A
Efficacy: 101.6 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

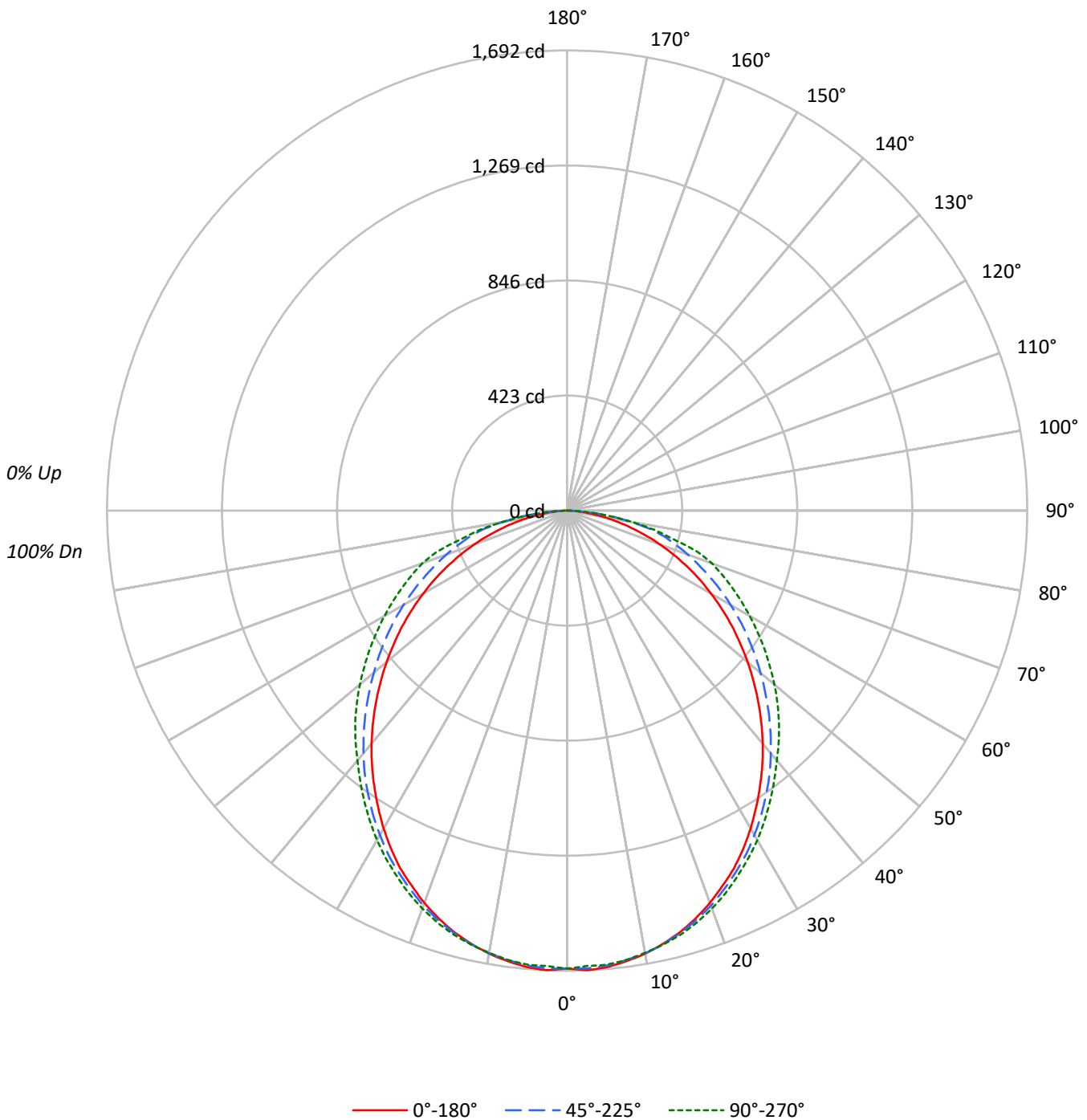
Input Watts (W): 45.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2265	2265	2265
5°	2276	2268	2264
10°	2260	2258	2256
15°	2235	2240	2248
20°	2198	2214	2229
25°	2155	2178	2201
30°	2097	2140	2174
35°	2031	2095	2138
40°	1965	2047	2107
45°	1890	1994	2097
50°	1814	1944	2083
55°	1735	1902	2076
60°	1645	1870	2086
65°	1547	1848	2128
70°	1424	1857	2228
75°	1263	1923	2076
80°	1055	1822	1870
85°	789	1457	1338



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.2	3.4
10°-20°	452.7	9.7
20°-30°	674.7	14.5
30°-40°	794.2	17.1
40°-50°	807.1	17.4
50°-60°	725.7	15.6
60°-70°	573.3	12.3
70°-80°	363.7	7.8
80°-90°	100.4	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°	1286.6	27.7
0°-40°	2080.9	44.7
0°-60°	3613.7	77.7
0°-90°	4651.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4651.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1684	1684	1684	1684	1684	
5°	1685	1671	1679	1676	1676	160
15°	1605	1597	1608	1613	1614	452
25°	1452	1450	1467	1476	1483	667
35°	1236	1244	1275	1289	1302	774
45°	994	1008	1048	1079	1102	767
55°	740	758	811	864	885	661
65°	486	511	580	644	668	481
75°	243	285	370	402	399	259
85°	51	88	94	87	87	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1683.7	1683.7	1683.7	1683.7	1683.7
2.5°	1691.5	1679.1	1685.3	1682.2	1676.0
5°	1685.3	1671.4	1679.1	1676.0	1676.0
7.5°	1671.4	1660.5	1666.7	1665.2	1666.7
10°	1654.3	1643.5	1652.8	1652.8	1651.2
12.5°	1631.1	1621.8	1632.7	1632.7	1634.2
15°	1604.8	1597.1	1607.9	1612.6	1614.1
17.5°	1572.3	1564.6	1578.5	1583.2	1587.8
20°	1535.2	1532.1	1546.0	1550.7	1556.8
22.5°	1493.4	1493.4	1507.3	1513.5	1522.8
25°	1451.6	1450.1	1467.1	1476.4	1482.6
27.5°	1402.1	1403.6	1425.3	1434.6	1442.3
30°	1349.5	1352.6	1377.3	1388.2	1399.0
32.5°	1293.8	1300.0	1327.8	1340.2	1351.0
35°	1236.5	1244.2	1275.2	1289.1	1301.5
37.5°	1179.2	1190.1	1222.6	1236.5	1250.4
40°	1118.9	1128.2	1165.3	1182.3	1199.4
42.5°	1057.0	1069.4	1106.5	1131.3	1151.4
45°	993.5	1007.5	1047.7	1078.7	1101.9
47.5°	930.1	948.7	987.3	1029.1	1049.2
50°	866.6	885.2	928.5	975.0	995.1
52.5°	801.6	820.2	869.7	917.7	939.4
55°	739.7	758.3	810.9	863.5	885.2
57.5°	674.7	694.9	753.7	807.8	829.5
60°	611.3	631.4	694.9	752.1	775.3
62.5°	549.4	571.1	637.6	698.0	721.2
65°	485.9	510.7	580.3	643.8	668.5
67.5°	424.0	451.9	524.6	591.2	617.5
70°	362.1	394.6	472.0	540.1	566.4
72.5°	301.8	337.4	419.4	487.5	501.4
75°	243.0	284.8	369.9	402.4	399.3
77.5°	187.3	233.7	314.2	320.3	329.6
80°	136.2	187.3	235.2	247.6	241.4
82.5°	89.8	140.8	168.7	162.5	160.9
85°	51.1	88.2	94.4	86.7	86.7
87.5°	21.7	35.6	31.0	23.2	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)