

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: P230089

Luminaire Tested: **24CZ-LD5-55SE-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230089
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-LD5-55SE-S-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4866.0 lumens
Efficiency: N/A
Efficacy: 89.0 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

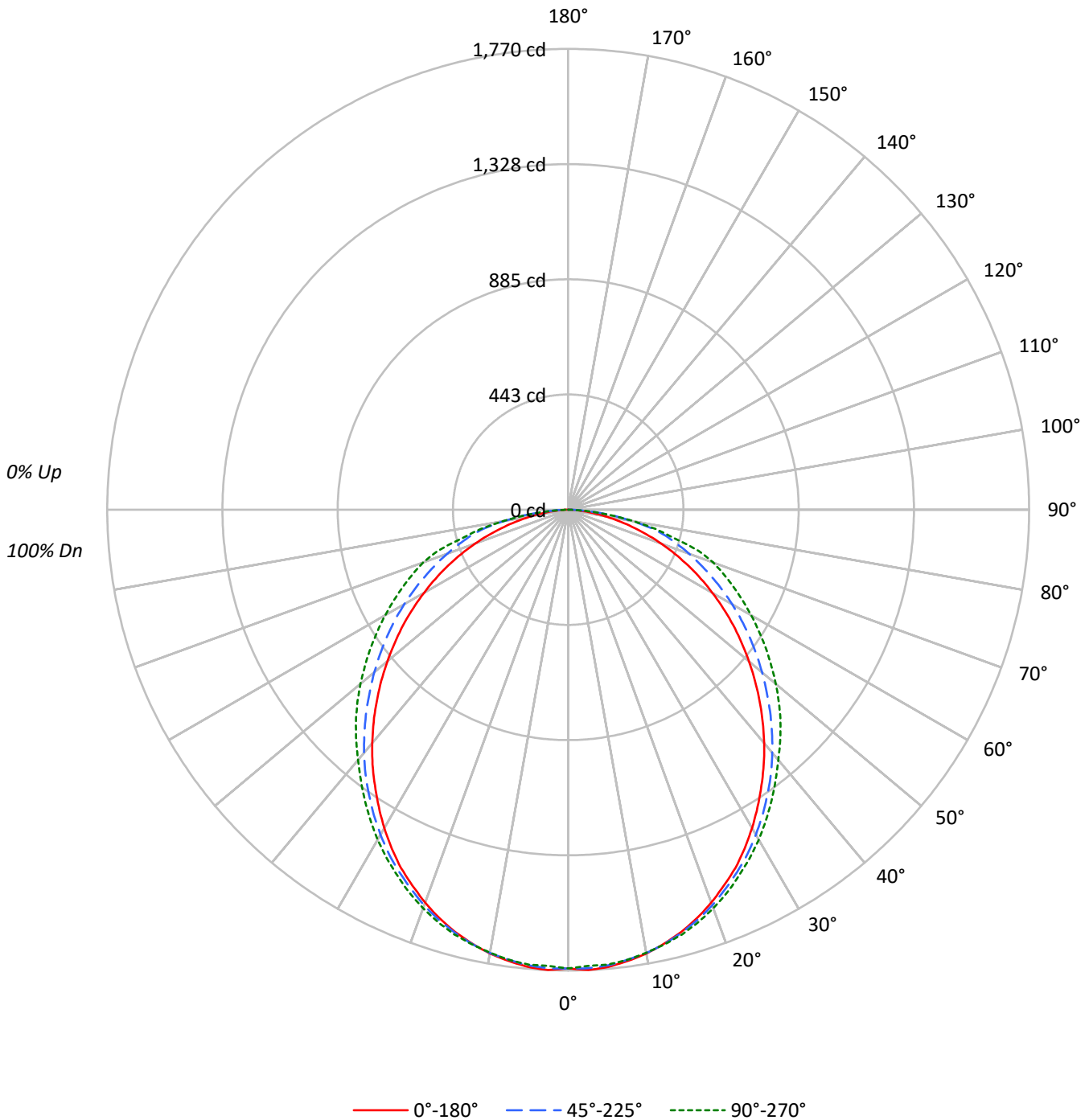
Input Watts (W): 54.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2370	2370	2370
5°	2381	2373	2368
10°	2365	2363	2360
15°	2339	2343	2352
20°	2300	2316	2332
25°	2255	2279	2303
30°	2194	2239	2274
35°	2125	2191	2237
40°	2056	2141	2204
45°	1978	2086	2194
50°	1898	2034	2179
55°	1815	1990	2172
60°	1721	1956	2183
65°	1619	1933	2227
70°	1491	1943	2331
75°	1321	2012	2171
80°	1104	1907	1957
85°	824	1525	1400



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.6	3.4
10°-20°	473.7	9.7
20°-30°	705.9	14.5
30°-40°	831.0	17.1
40°-50°	844.4	17.4
50°-60°	759.2	15.6
60°-70°	599.8	12.3
70°-80°	380.5	7.8
80°-90°	105.0	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°	1346.1	27.7
0°-40°	2177.1	44.7
0°-60°	3780.7	77.7
0°-90°	4866.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4866.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1762	1762	1762	1762	1762	
5°	1763	1749	1757	1754	1754	167
15°	1679	1671	1682	1687	1689	473
25°	1519	1517	1535	1545	1551	698
35°	1294	1302	1334	1349	1362	809
45°	1040	1054	1096	1128	1153	802
55°	774	793	848	904	926	691
65°	508	534	607	674	700	504
75°	254	298	387	421	418	271
85°	53	92	99	91	91	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1761.6	1761.6	1761.6	1761.6	1761.6
2.5°	1769.7	1756.7	1763.2	1760.0	1753.5
5°	1763.2	1748.6	1756.7	1753.5	1753.5
7.5°	1748.6	1737.3	1743.8	1742.2	1743.8
10°	1730.8	1719.5	1729.2	1729.2	1727.6
12.5°	1706.5	1696.8	1708.2	1708.2	1709.8
15°	1679.0	1670.9	1682.2	1687.1	1688.7
17.5°	1645.0	1636.9	1651.5	1656.3	1661.2
20°	1606.1	1602.9	1617.5	1622.3	1628.8
22.5°	1562.4	1562.4	1577.0	1583.5	1593.2
25°	1518.7	1517.1	1534.9	1544.6	1551.1
27.5°	1466.9	1468.5	1491.2	1500.9	1509.0
30°	1411.9	1415.1	1441.0	1452.3	1463.7
32.5°	1353.6	1360.0	1389.2	1402.1	1413.5
35°	1293.7	1301.8	1334.1	1348.7	1361.7
37.5°	1233.8	1245.1	1279.1	1293.7	1308.2
40°	1170.6	1180.3	1219.2	1237.0	1254.8
42.5°	1105.8	1118.8	1157.7	1183.6	1204.6
45°	1039.5	1054.0	1096.1	1128.5	1152.8
47.5°	973.1	992.5	1033.0	1076.7	1097.8
50°	906.7	926.1	971.5	1020.0	1041.1
52.5°	838.7	858.1	909.9	960.1	982.8
55°	773.9	793.4	848.4	903.5	926.1
57.5°	705.9	727.0	788.5	845.2	867.8
60°	639.5	660.6	727.0	786.9	811.2
62.5°	574.8	597.4	667.1	730.2	754.5
65°	508.4	534.3	607.2	673.5	699.5
67.5°	443.6	472.8	548.9	618.5	646.0
70°	378.9	412.9	493.8	565.1	592.6
72.5°	315.7	353.0	438.8	510.0	524.6
75°	254.2	297.9	387.0	421.0	417.7
77.5°	195.9	244.5	328.7	335.2	344.9
80°	142.5	195.9	246.1	259.1	252.6
82.5°	93.9	147.3	176.5	170.0	168.4
85°	53.4	92.3	98.8	90.7	90.7
87.5°	22.7	37.2	32.4	24.3	22.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)