

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: P230095

Luminaire Tested: **24CZ-LD5-60SE-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230095
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-LD5-60SE-S-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5836.0 lumens
Efficiency: N/A
Efficacy: 97.3 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

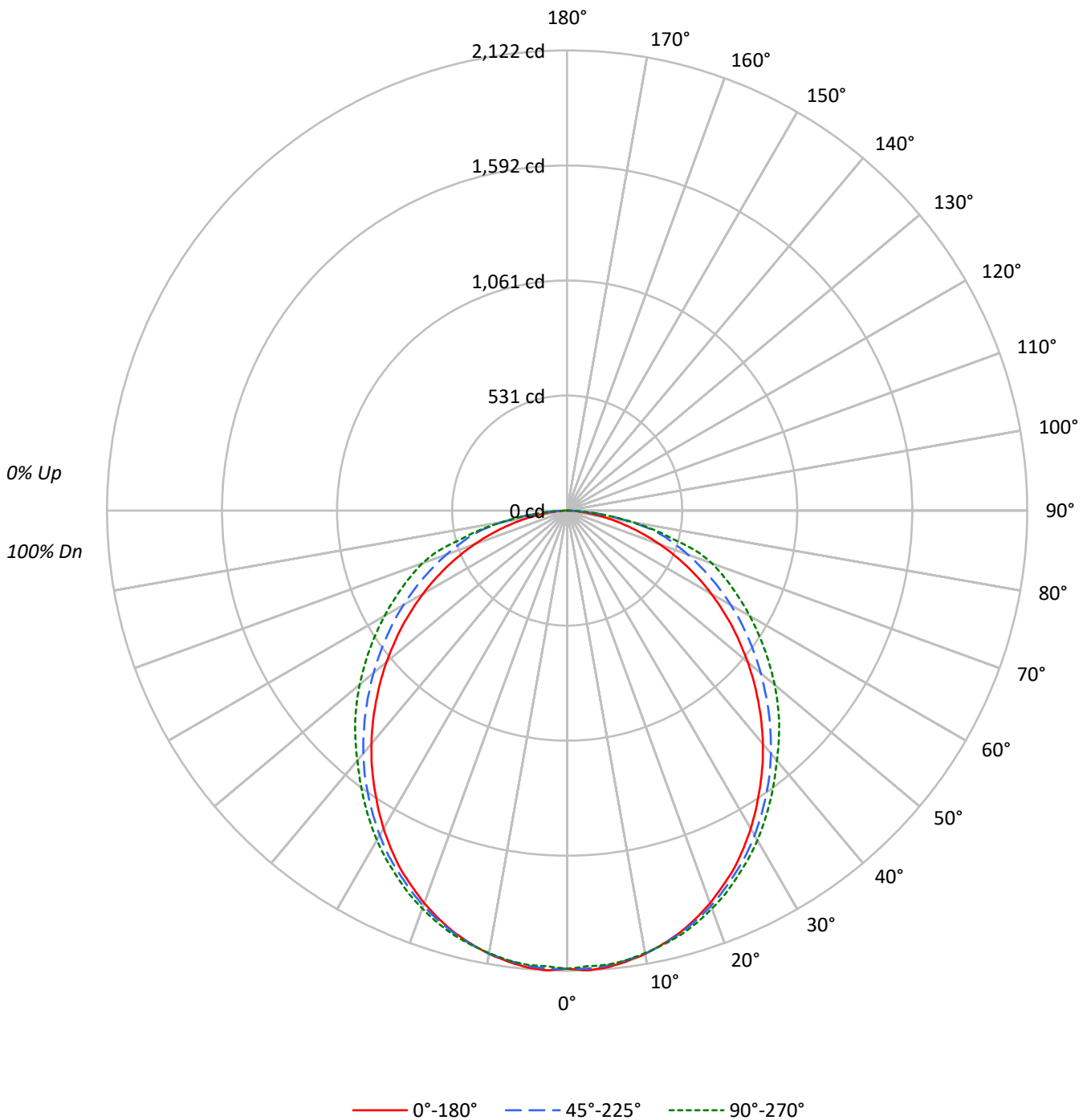
Input Watts (W): 60
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2843	2843	2843
5°	2856	2846	2840
10°	2836	2833	2831
15°	2805	2810	2821
20°	2758	2778	2797
25°	2704	2733	2762
30°	2631	2685	2727
35°	2548	2628	2682
40°	2466	2568	2643
45°	2372	2501	2631
50°	2276	2439	2614
55°	2177	2387	2605
60°	2064	2346	2618
65°	1941	2318	2671
70°	1788	2330	2796
75°	1585	2413	2604
80°	1324	2287	2347
85°	990	1829	1678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.8	3.4
10°-20°	568.1	9.7
20°-30°	846.6	14.5
30°-40°	996.6	17.1
40°-50°	1012.8	17.4
50°-60°	910.5	15.6
60°-70°	719.3	12.3
70°-80°	456.4	7.8
80°-90°	126.0	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°	1614.5	27.7
0°-40°	2611.0	44.7
0°-60°	4534.3	77.7
0°-90°	5836.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5836.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2113	2113	2113	2113	2113	
5°	2115	2097	2107	2103	2103	201
15°	2014	2004	2018	2023	2025	567
25°	1822	1820	1841	1852	1860	837
35°	1552	1561	1600	1618	1633	971
45°	1247	1264	1315	1354	1383	962
55°	928	952	1018	1084	1111	829
65°	610	641	728	808	839	604
75°	305	357	464	505	501	325
85°	64	111	118	109	109	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2112.7	2112.7	2112.7	2112.7	2112.7
2.5°	2122.4	2106.9	2114.7	2110.8	2103.0
5°	2114.7	2097.2	2106.9	2103.0	2103.0
7.5°	2097.2	2083.6	2091.4	2089.4	2091.4
10°	2075.8	2062.3	2073.9	2073.9	2072.0
12.5°	2046.7	2035.1	2048.7	2048.7	2050.6
15°	2013.7	2004.0	2017.6	2023.4	2025.4
17.5°	1972.9	1963.2	1980.7	1986.5	1992.3
20°	1926.3	1922.4	1939.9	1945.7	1953.5
22.5°	1873.9	1873.9	1891.4	1899.1	1910.8
25°	1821.5	1819.5	1840.9	1852.5	1860.3
27.5°	1759.3	1761.3	1788.4	1800.1	1809.8
30°	1693.3	1697.2	1728.3	1741.8	1755.4
32.5°	1623.4	1631.2	1666.1	1681.6	1695.2
35°	1551.5	1561.3	1600.1	1617.6	1633.1
37.5°	1479.7	1493.3	1534.1	1551.5	1569.0
40°	1404.0	1415.6	1462.2	1483.6	1504.9
42.5°	1326.3	1341.8	1388.4	1419.5	1444.7
45°	1246.7	1264.1	1314.6	1353.5	1382.6
47.5°	1167.1	1190.4	1238.9	1291.3	1316.6
50°	1087.4	1110.7	1165.1	1223.4	1248.6
52.5°	1005.9	1029.2	1091.3	1151.5	1178.7
55°	928.2	951.5	1017.5	1083.6	1110.7
57.5°	846.6	871.9	945.7	1013.6	1040.8
60°	767.0	792.3	871.9	943.7	972.9
62.5°	689.4	716.5	800.0	875.8	904.9
65°	609.7	640.8	728.2	807.8	838.9
67.5°	532.1	567.0	658.3	741.8	774.8
70°	454.4	495.2	592.3	677.7	710.7
72.5°	378.7	423.3	526.2	611.7	629.2
75°	304.9	357.3	464.1	504.9	501.0
77.5°	235.0	293.2	394.2	402.0	413.6
80°	170.9	235.0	295.2	310.7	302.9
82.5°	112.6	176.7	211.7	203.9	202.0
85°	64.1	110.7	118.5	108.7	108.7
87.5°	27.2	44.7	38.8	29.1	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)