

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: P230053

Luminaire Tested: **24CZ-LD5-60-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230053
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-LD5-60-S-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5356.0 lumens
Efficiency: N/A
Efficacy: 102.7 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

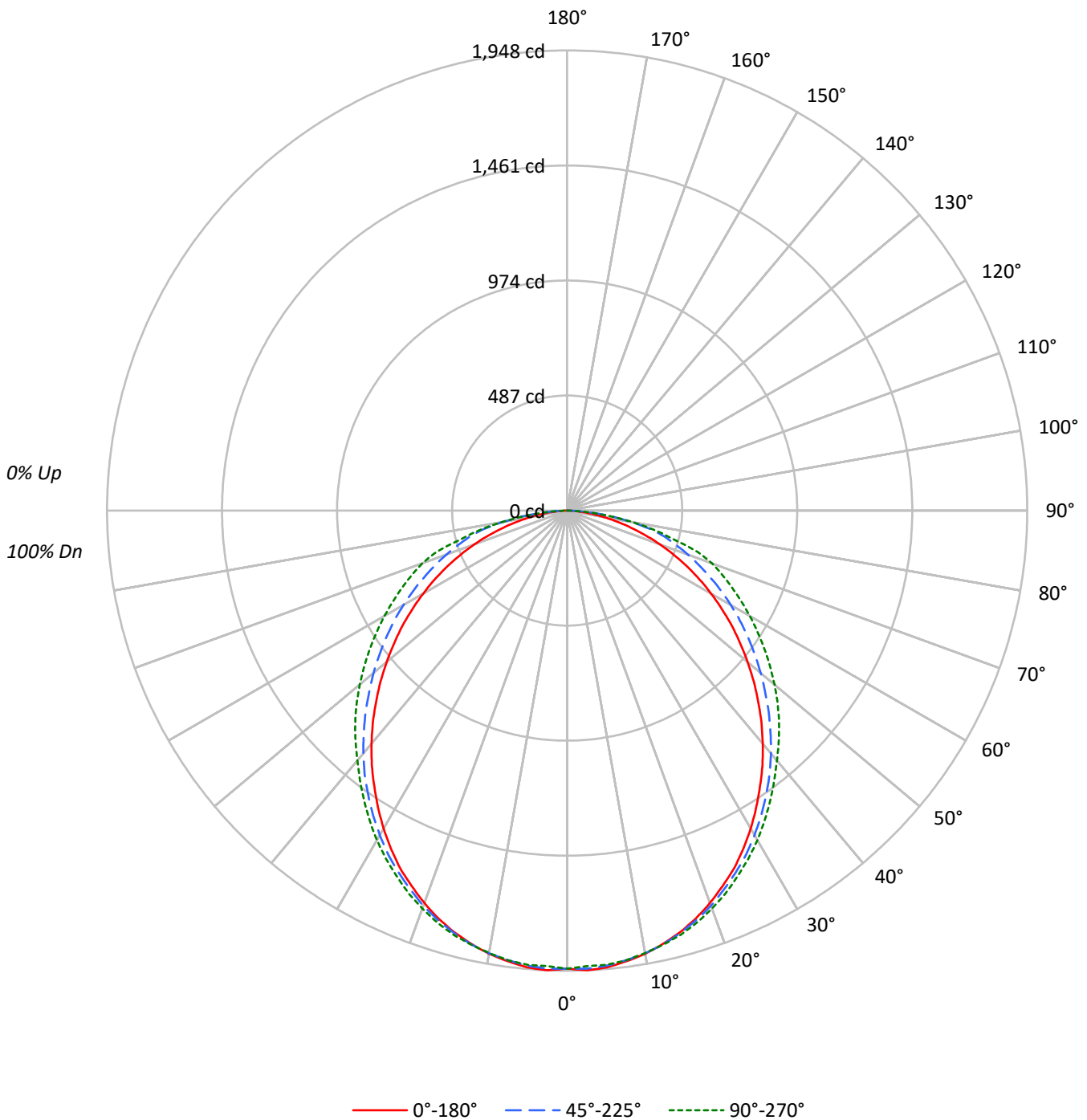
Input Watts (W): 52.17
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2609	2609	2609
5°	2621	2612	2607
10°	2603	2600	2598
15°	2574	2579	2589
20°	2531	2549	2567
25°	2482	2508	2535
30°	2414	2464	2503
35°	2339	2412	2462
40°	2263	2357	2426
45°	2177	2296	2414
50°	2089	2238	2399
55°	1998	2190	2391
60°	1894	2153	2403
65°	1782	2128	2451
70°	1640	2138	2566
75°	1455	2214	2390
80°	1215	2099	2154
85°	908	1678	1541



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.3	3.4
10°-20°	521.4	9.7
20°-30°	777.0	14.5
30°-40°	914.6	17.1
40°-50°	929.5	17.4
50°-60°	835.6	15.6
60°-70°	660.2	12.3
70°-80°	418.8	7.8
80°-90°	115.6	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°	1481.7	27.7
0°-40°	2396.3	44.7
0°-60°	4161.4	77.7
0°-90°	5356.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5356.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1939	1939	1939	1939	1939	
5°	1941	1925	1934	1930	1930	184
15°	1848	1839	1852	1857	1859	521
25°	1672	1670	1690	1700	1707	769
35°	1424	1433	1468	1484	1499	891
45°	1144	1160	1206	1242	1269	883
55°	852	873	934	994	1019	761
65°	560	588	668	741	770	554
75°	280	328	426	463	460	298
85°	59	102	109	100	100	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1939.0	1939.0	1939.0	1939.0	1939.0
2.5°	1947.9	1933.6	1940.8	1937.2	1930.1
5°	1940.8	1924.7	1933.6	1930.1	1930.1
7.5°	1924.7	1912.2	1919.4	1917.6	1919.4
10°	1905.1	1892.6	1903.3	1903.3	1901.5
12.5°	1878.4	1867.7	1880.2	1880.2	1881.9
15°	1848.1	1839.2	1851.6	1857.0	1858.8
17.5°	1810.7	1801.7	1817.8	1823.1	1828.5
20°	1767.9	1764.3	1780.4	1785.7	1792.8
22.5°	1719.8	1719.8	1735.8	1742.9	1753.6
25°	1671.6	1669.9	1689.5	1700.2	1707.3
27.5°	1614.6	1616.4	1641.4	1652.0	1661.0
30°	1554.0	1557.6	1586.1	1598.6	1611.1
32.5°	1489.9	1497.0	1529.1	1543.3	1555.8
35°	1423.9	1432.8	1468.5	1484.5	1498.8
37.5°	1358.0	1370.5	1407.9	1423.9	1440.0
40°	1288.5	1299.2	1342.0	1361.6	1381.2
42.5°	1217.2	1231.5	1274.2	1302.7	1325.9
45°	1144.1	1160.2	1206.5	1242.2	1268.9
47.5°	1071.1	1092.5	1137.0	1185.1	1208.3
50°	998.0	1019.4	1069.3	1122.7	1145.9
52.5°	923.1	944.5	1001.6	1056.8	1081.8
55°	851.9	873.2	933.8	994.4	1019.4
57.5°	777.0	800.2	867.9	930.3	955.2
60°	703.9	727.1	800.2	866.1	892.9
62.5°	632.7	657.6	734.2	803.7	830.5
65°	559.6	588.1	668.3	741.4	769.9
67.5°	488.3	520.4	604.1	680.8	711.1
70°	417.0	454.4	543.6	622.0	652.3
72.5°	347.5	388.5	483.0	561.4	577.4
75°	279.8	327.9	425.9	463.4	459.8
77.5°	215.6	269.1	361.8	368.9	379.6
80°	156.8	215.6	270.9	285.1	278.0
82.5°	103.4	162.2	194.3	187.1	185.3
85°	58.8	101.6	108.7	99.8	99.8
87.5°	24.9	41.0	35.6	26.7	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)