

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: P230056

Luminaire Tested: **24CZ-LD5-65-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230056
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-LD5-65-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: 5559.0 lumens
Efficiency: N/A
Efficacy: 96.4 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

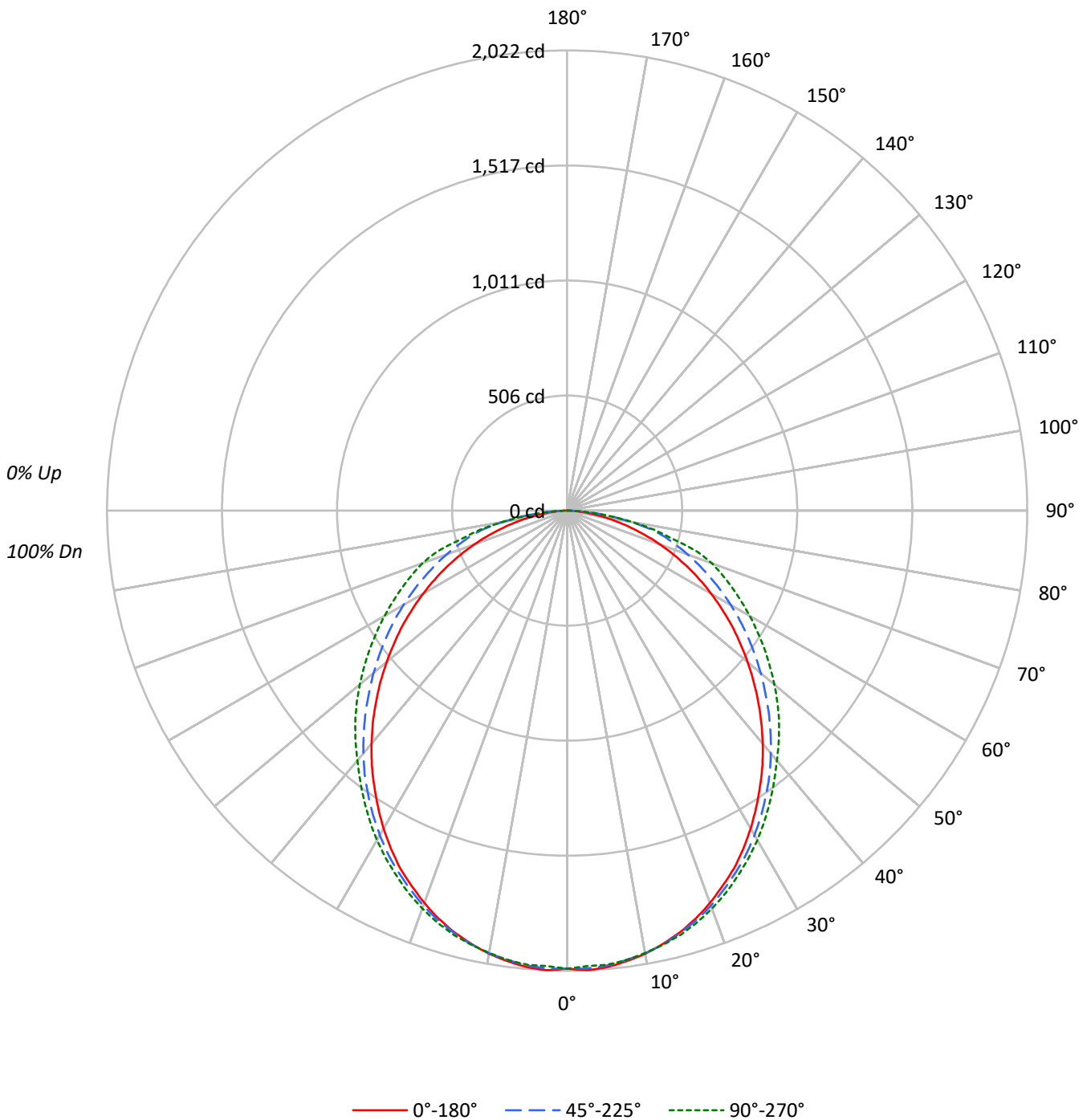
Input Watts (W): 57.64
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2708	2708	2708
5°	2721	2711	2706
10°	2701	2699	2696
15°	2672	2677	2687
20°	2627	2646	2664
25°	2576	2603	2631
30°	2506	2558	2598
35°	2428	2503	2555
40°	2349	2446	2518
45°	2260	2383	2506
50°	2168	2323	2489
55°	2074	2274	2482
60°	1966	2235	2494
65°	1849	2208	2544
70°	1703	2220	2663
75°	1510	2298	2481
80°	1261	2179	2236
85°	942	1741	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.3	3.4
10°-20°	541.1	9.7
20°-30°	806.4	14.5
30°-40°	949.3	17.1
40°-50°	964.7	17.4
50°-60°	867.3	15.6
60°-70°	685.2	12.3
70°-80°	434.7	7.8
80°-90°	120.0	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°	1537.8	27.7
0°-40°	2487.1	44.7
0°-60°	4319.1	77.7
0°-90°	5559.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5559.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2012	2012	2012	2012	2012	
5°	2014	1998	2007	2003	2003	191
15°	1918	1909	1922	1927	1929	540
25°	1735	1733	1754	1765	1772	798
35°	1478	1487	1524	1541	1556	925
45°	1188	1204	1252	1289	1317	916
55°	884	906	969	1032	1058	790
65°	581	610	694	770	799	575
75°	290	340	442	481	477	309
85°	61	105	113	104	104	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2012.5	2012.5	2012.5	2012.5	2012.5
2.5°	2021.7	2006.9	2014.3	2010.6	2003.2
5°	2014.3	1997.7	2006.9	2003.2	2003.2
7.5°	1997.7	1984.7	1992.1	1990.3	1992.1
10°	1977.3	1964.4	1975.5	1975.5	1973.6
12.5°	1949.6	1938.5	1951.4	1951.4	1953.3
15°	1918.1	1908.9	1921.8	1927.4	1929.2
17.5°	1879.3	1870.0	1886.7	1892.2	1897.8
20°	1834.9	1831.2	1847.8	1853.4	1860.8
22.5°	1784.9	1784.9	1801.6	1809.0	1820.1
25°	1735.0	1733.2	1753.5	1764.6	1772.0
27.5°	1675.8	1677.7	1703.6	1714.7	1723.9
30°	1612.9	1616.6	1646.2	1659.2	1672.1
32.5°	1546.3	1553.7	1587.0	1601.8	1614.8
35°	1477.9	1487.1	1524.1	1540.8	1555.6
37.5°	1409.5	1422.4	1461.3	1477.9	1494.5
40°	1337.3	1348.4	1392.8	1413.2	1433.5
42.5°	1263.3	1278.1	1322.5	1352.1	1376.2
45°	1187.5	1204.1	1252.2	1289.2	1317.0
47.5°	1111.7	1133.9	1180.1	1230.0	1254.1
50°	1035.8	1058.0	1109.8	1165.3	1189.3
52.5°	958.1	980.3	1039.5	1096.9	1122.8
55°	884.2	906.3	969.2	1032.1	1058.0
57.5°	806.5	830.5	900.8	965.5	991.4
60°	730.6	754.7	830.5	898.9	926.7
62.5°	656.6	682.5	762.1	834.2	862.0
65°	580.8	610.4	693.6	769.5	799.1
67.5°	506.8	540.1	627.0	706.6	738.0
70°	432.8	471.7	564.2	645.5	677.0
72.5°	360.7	403.2	501.3	582.7	599.3
75°	290.4	340.3	442.1	480.9	477.2
77.5°	223.8	279.3	375.5	382.9	394.0
80°	162.8	223.8	281.2	296.0	288.6
82.5°	107.3	168.3	201.6	194.2	192.4
85°	61.0	105.4	112.8	103.6	103.6
87.5°	25.9	42.5	37.0	27.7	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)