

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: P230058

Luminaire Tested: **24CZ-LD5-65-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230058
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-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5921.0 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

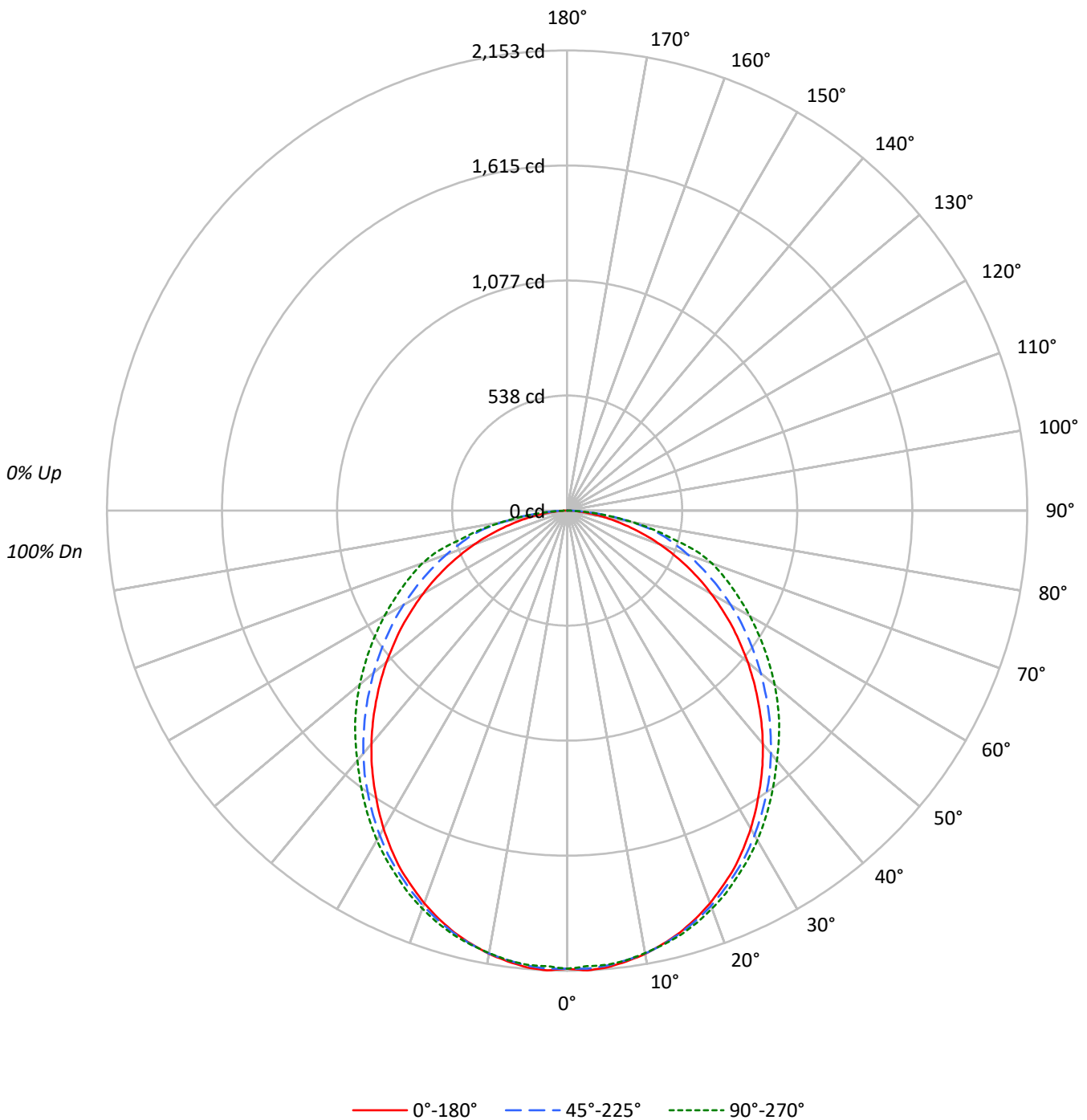
Input Watts (W): 57.64
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2884	2884	2884
5°	2898	2887	2882
10°	2877	2875	2872
15°	2846	2851	2862
20°	2798	2818	2838
25°	2744	2773	2802
30°	2669	2724	2767
35°	2586	2666	2722
40°	2502	2606	2682
45°	2407	2538	2669
50°	2309	2474	2652
55°	2209	2422	2643
60°	2094	2380	2656
65°	1969	2352	2710
70°	1814	2364	2837
75°	1608	2448	2642
80°	1344	2321	2381
85°	1003	1856	1703



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.7	3.4
10°-20°	576.4	9.7
20°-30°	858.9	14.5
30°-40°	1011.1	17.1
40°-50°	1027.5	17.4
50°-60°	923.8	15.6
60°-70°	729.8	12.3
70°-80°	463.0	7.8
80°-90°	127.8	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°	1638.0	27.7
0°-40°	2649.1	44.7
0°-60°	4600.4	77.7
0°-90°	5921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5921.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2144	2144	2144	2144	2144	
5°	2146	2128	2138	2134	2134	203
15°	2043	2033	2047	2053	2055	575
25°	1848	1846	1868	1880	1887	850
35°	1574	1584	1623	1641	1657	985
45°	1265	1283	1334	1373	1403	976
55°	942	965	1032	1099	1127	841
65°	619	650	739	820	851	613
75°	309	362	471	512	508	329
85°	65	112	120	110	110	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2143.5	2143.5	2143.5	2143.5	2143.5
2.5°	2153.4	2137.6	2145.5	2141.5	2133.7
5°	2145.5	2127.7	2137.6	2133.7	2133.7
7.5°	2127.7	2114.0	2121.8	2119.9	2121.8
10°	2106.1	2092.3	2104.1	2104.1	2102.1
12.5°	2076.5	2064.7	2078.5	2078.5	2080.5
15°	2043.0	2033.2	2047.0	2052.9	2054.9
17.5°	2001.7	1991.8	2009.5	2015.5	2021.4
20°	1954.4	1950.4	1968.2	1974.1	1982.0
22.5°	1901.2	1901.2	1918.9	1926.8	1938.6
25°	1848.0	1846.0	1867.7	1879.5	1887.4
27.5°	1784.9	1786.9	1814.5	1826.3	1836.2
30°	1718.0	1721.9	1753.4	1767.2	1781.0
32.5°	1647.0	1654.9	1690.4	1706.1	1719.9
35°	1574.1	1584.0	1623.4	1641.1	1656.9
37.5°	1501.2	1515.0	1556.4	1574.1	1591.9
40°	1424.4	1436.2	1483.5	1505.2	1526.9
42.5°	1345.6	1361.4	1408.6	1440.2	1465.8
45°	1264.8	1282.6	1333.8	1373.2	1402.7
47.5°	1184.1	1207.7	1256.9	1310.1	1335.8
50°	1103.3	1126.9	1182.1	1241.2	1266.8
52.5°	1020.5	1044.2	1107.2	1168.3	1195.9
55°	941.7	965.4	1032.4	1099.3	1126.9
57.5°	859.0	884.6	959.5	1028.4	1056.0
60°	778.2	803.8	884.6	957.5	987.0
62.5°	699.4	727.0	811.7	888.5	918.1
65°	618.6	650.1	738.8	819.6	851.1
67.5°	539.8	575.3	667.9	752.6	786.1
70°	461.0	502.4	600.9	687.6	721.1
72.5°	384.2	429.5	533.9	620.6	638.3
75°	309.3	362.5	470.9	512.2	508.3
77.5°	238.4	297.5	399.9	407.8	419.6
80°	173.4	238.4	299.5	315.2	307.3
82.5°	114.3	179.3	214.7	206.9	204.9
85°	65.0	112.3	120.2	110.3	110.3
87.5°	27.6	45.3	39.4	29.6	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)