

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: P230060

Luminaire Tested: **24CZ-LD5-70-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230060
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-LD5-70-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

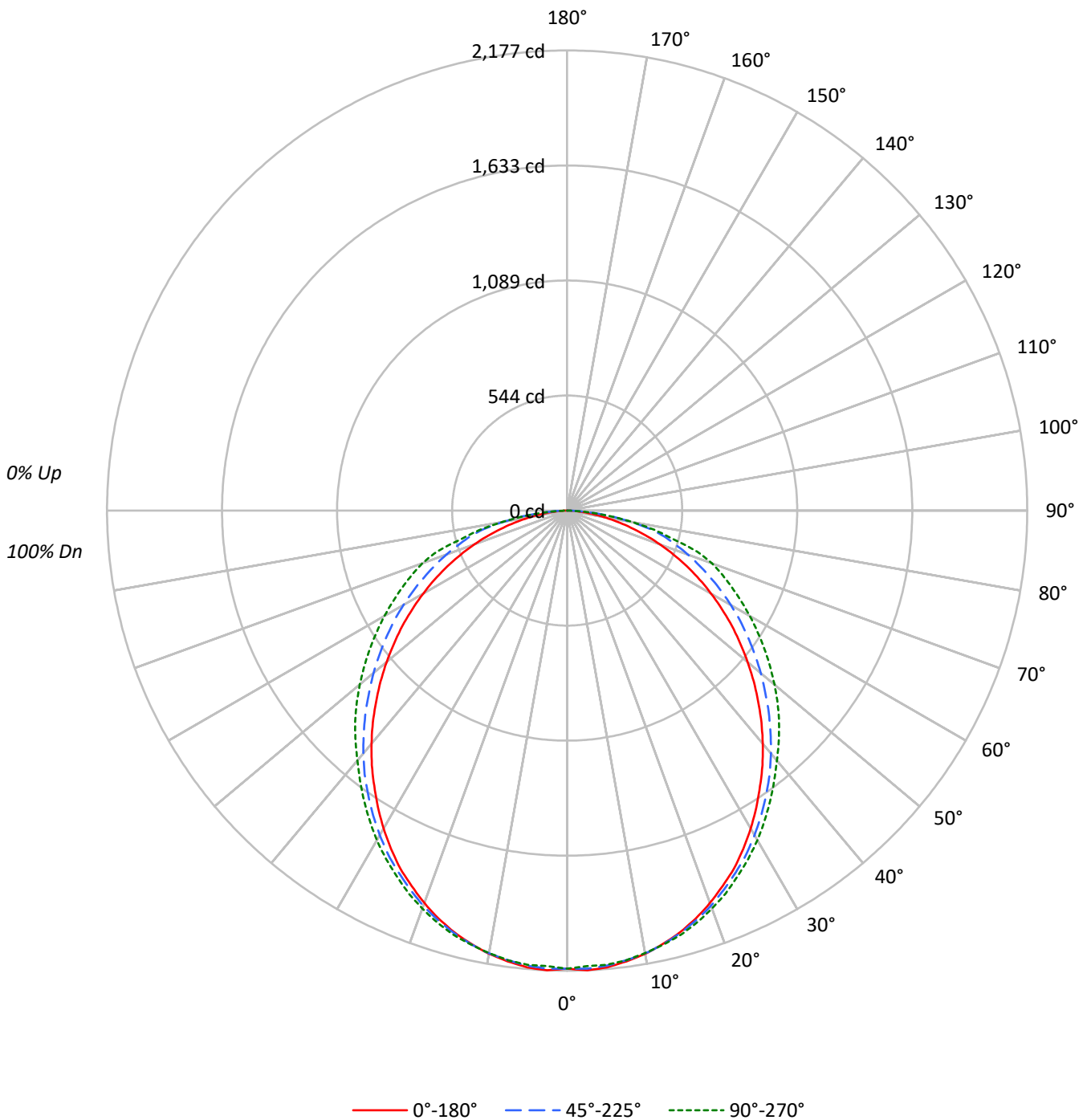
Lumens per Lamp: N/A
Luminaire Lumens: 5986.0 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 64.22
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



TEST NUMBER: P230060
CATALOG NUMBER: 24CZ-LD5-70-S-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230060

CATALOG NUMBER: 24CZ-LD5-70-S-UNV-L930-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83	83	
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69	69	
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58	58	
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50	50	
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43	43	
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38	38	
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33	33	
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30	30	
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27	27	
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24	24	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2916	2916	2916
5°	2930	2919	2913
10°	2909	2906	2904
15°	2877	2883	2894
20°	2829	2849	2869
25°	2774	2803	2833
30°	2698	2754	2797
35°	2614	2696	2751
40°	2529	2634	2711
45°	2433	2566	2698
50°	2335	2502	2681
55°	2233	2448	2673
60°	2117	2407	2685
65°	1991	2378	2739
70°	1834	2390	2868
75°	1626	2475	2672
80°	1358	2345	2407
85°	1014	1876	1721



TEST NUMBER: P230060

CATALOG NUMBER: 24CZ-LD5-70-S-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.9	3.4
10°-20°	582.7	9.7
20°-30°	868.4	14.5
30°-40°	1022.2	17.1
40°-50°	1038.8	17.4
50°-60°	933.9	15.6
60°-70°	737.8	12.3
70°-80°	468.1	7.8
80°-90°	129.2	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°	1656.0	27.7
0°-40°	2678.2	44.7
0°-60°	4650.9	77.7
0°-90°	5986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5986.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2167	2167	2167	2167	2167	
5°	2169	2151	2161	2157	2157	206
15°	2066	2056	2069	2075	2077	582
25°	1868	1866	1888	1900	1908	859
35°	1591	1601	1641	1659	1675	996
45°	1279	1297	1348	1388	1418	987
55°	952	976	1044	1111	1139	850
65°	625	657	747	829	860	619
75°	313	366	476	518	514	333
85°	66	114	122	112	112	81
90°	0	0	0	0	0	



TEST NUMBER: P230060

CATALOG NUMBER: 24CZ-LD5-70-S-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2167.0	2167.0	2167.0	2167.0	2167.0
2.5°	2177.0	2161.1	2169.0	2165.1	2157.1
5°	2169.0	2151.1	2161.1	2157.1	2157.1
7.5°	2151.1	2137.2	2145.1	2143.1	2145.1
10°	2129.2	2115.3	2127.2	2127.2	2125.2
12.5°	2099.3	2087.4	2101.3	2101.3	2103.3
15°	2065.5	2055.5	2069.4	2075.4	2077.4
17.5°	2023.6	2013.7	2031.6	2037.6	2043.6
20°	1975.8	1971.8	1989.8	1995.8	2003.7
22.5°	1922.1	1922.1	1940.0	1947.9	1959.9
25°	1868.3	1866.3	1888.2	1900.1	1908.1
27.5°	1804.5	1806.5	1834.4	1846.4	1856.3
30°	1736.8	1740.8	1772.7	1786.6	1800.6
32.5°	1665.1	1673.1	1708.9	1724.9	1738.8
35°	1591.4	1601.4	1641.2	1659.1	1675.1
37.5°	1517.7	1531.7	1573.5	1591.4	1609.3
40°	1440.0	1452.0	1499.8	1521.7	1543.6
42.5°	1360.4	1376.3	1424.1	1456.0	1481.9
45°	1278.7	1296.6	1348.4	1388.3	1418.1
47.5°	1197.1	1221.0	1270.7	1324.5	1350.4
50°	1115.4	1139.3	1195.1	1254.8	1280.7
52.5°	1031.7	1055.6	1119.4	1181.1	1209.0
55°	952.1	976.0	1043.7	1111.4	1139.3
57.5°	868.4	894.3	970.0	1039.7	1067.6
60°	786.7	812.6	894.3	968.0	997.9
62.5°	707.1	735.0	820.6	898.3	928.2
65°	625.4	657.3	746.9	828.6	860.4
67.5°	545.7	581.6	675.2	760.9	794.7
70°	466.1	507.9	607.5	695.1	729.0
72.5°	388.4	434.2	539.8	627.4	645.3
75°	312.7	366.5	476.0	517.9	513.9
77.5°	241.0	300.8	404.3	412.3	424.2
80°	175.3	241.0	302.7	318.7	310.7
82.5°	115.5	181.3	217.1	209.1	207.1
85°	65.7	113.5	121.5	111.5	111.5
87.5°	27.9	45.8	39.8	29.9	27.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)