

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: P#

Luminaire Tested: **24CZ-LD5-60SE-S-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
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-L830-CD1-U
Description: CRUZE 2x4 LED TROFFER

Light Source: -
Ballast/Driver: -

Summary

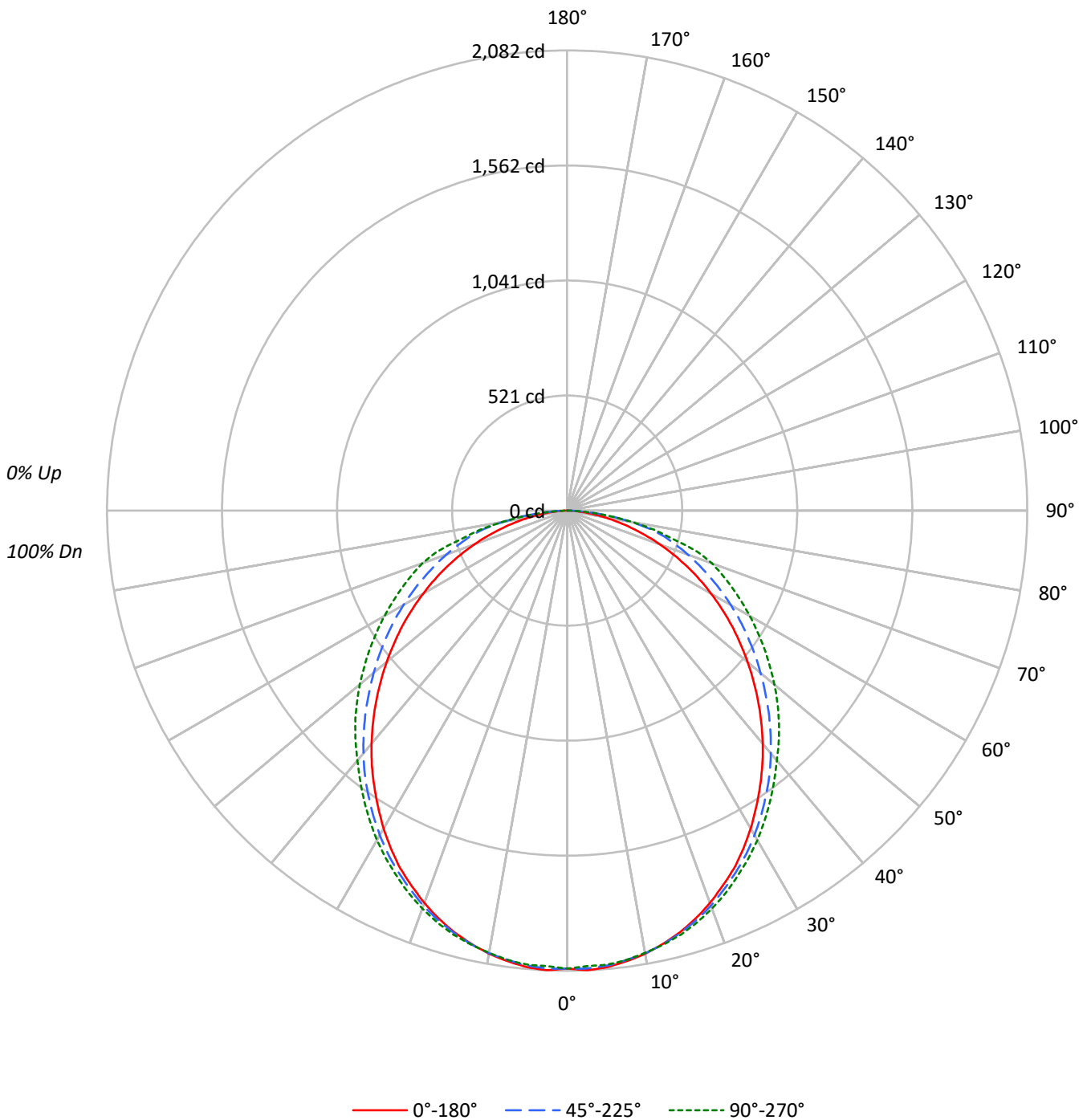
Lumens per Lamp: N/A
Luminaire Lumens: 5723.6 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 60
Input Voltage (V): NR
Input Current (A_{in}): 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: P#
CATALOG NUMBER: 24CZ-LD5-60SE-S-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 24CZ-LD5-60SE-S-UNV-L830-CD1-U

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°	2788	2788	2788
5°	2795	2778	2774
10°	2769	2753	2752
15°	2733	2718	2730
20°	2681	2673	2694
25°	2621	2616	2647
30°	2543	2555	2600
35°	2456	2485	2542
40°	2369	2411	2488
45°	2270	2330	2457
50°	2168	2250	2419
55°	2062	2176	2385
60°	1940	2107	2363
65°	1807	2042	2366
70°	1640	1994	2411
75°	1422	1975	2152
80°	1137	1724	1793
85°	755	1117	1048



TEST NUMBER: P#

CATALOG NUMBER: 24CZ-LD5-60SE-S-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.9	3.4
10°-20°	557.2	9.7
20°-30°	830.3	14.5
30°-40°	977.4	17.1
40°-50°	993.2	17.4
50°-60°	893.0	15.6
60°-70°	705.5	12.3
70°-80°	447.6	7.8
80°-90°	123.5	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°	1583.4	27.7
0°-40°	2560.7	44.7
0°-60°	4447.0	77.7
0°-90°	5723.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5723.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2072	2072	2072	2072	2072	
5°	2074	2057	2066	2062	2062	197
15°	1975	1965	1979	1984	1986	556
25°	1786	1784	1805	1817	1824	821
35°	1522	1531	1569	1586	1602	952
45°	1223	1240	1289	1327	1356	943
55°	910	933	998	1063	1089	813
65°	598	628	714	792	823	592
75°	299	350	455	495	491	318
85°	63	109	116	107	107	77
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: 24CZ-LD5-60SE-S-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2072.0	2072.0	2072.0	2072.0	2072.0
2.5°	2081.5	2066.3	2073.9	2070.1	2062.5
5°	2073.9	2056.8	2066.3	2062.5	2062.5
7.5°	2056.8	2043.4	2051.0	2049.2	2051.0
10°	2035.8	2022.6	2034.0	2034.0	2032.0
12.5°	2007.3	1995.9	2009.2	2009.2	2011.1
15°	1974.9	1965.4	1978.8	1984.5	1986.4
17.5°	1934.9	1925.4	1942.6	1948.3	1954.0
20°	1889.2	1885.4	1902.6	1908.3	1915.9
22.5°	1837.8	1837.8	1854.9	1862.6	1874.0
25°	1786.4	1784.5	1805.4	1816.9	1824.5
27.5°	1725.4	1727.3	1754.0	1765.4	1775.0
30°	1660.7	1664.5	1695.0	1708.3	1721.6
32.5°	1592.1	1599.7	1634.0	1649.2	1662.6
35°	1521.6	1531.2	1569.2	1586.4	1601.6
37.5°	1451.2	1464.5	1504.5	1521.6	1538.8
40°	1376.9	1388.3	1434.0	1455.0	1475.9
42.5°	1300.7	1315.9	1361.6	1392.1	1416.9
45°	1222.6	1239.8	1289.3	1327.4	1355.9
47.5°	1144.6	1167.5	1215.0	1266.4	1291.2
50°	1066.5	1089.4	1142.7	1199.8	1224.6
52.5°	986.5	1009.4	1070.3	1129.4	1156.0
55°	910.3	933.2	997.9	1062.7	1089.4
57.5°	830.3	855.1	927.5	994.1	1020.8
60°	752.2	777.0	855.1	925.6	954.1
62.5°	676.1	702.7	784.6	858.9	887.5
65°	598.0	628.4	714.2	792.2	822.7
67.5°	521.8	556.1	645.6	727.5	759.9
70°	445.6	485.6	580.8	664.6	697.0
72.5°	371.4	415.2	516.1	599.9	617.0
75°	299.0	350.5	455.1	495.1	491.3
77.5°	230.5	287.6	386.6	394.2	405.6
80°	167.6	230.5	289.5	304.7	297.1
82.5°	110.5	173.3	207.6	200.0	198.1
85°	62.9	108.6	116.2	106.7	106.7
87.5°	26.7	43.8	38.1	28.6	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)