

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: P230023

Luminaire Tested: **24CZ-LD5-60SE-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230023
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-60SE-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5722.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

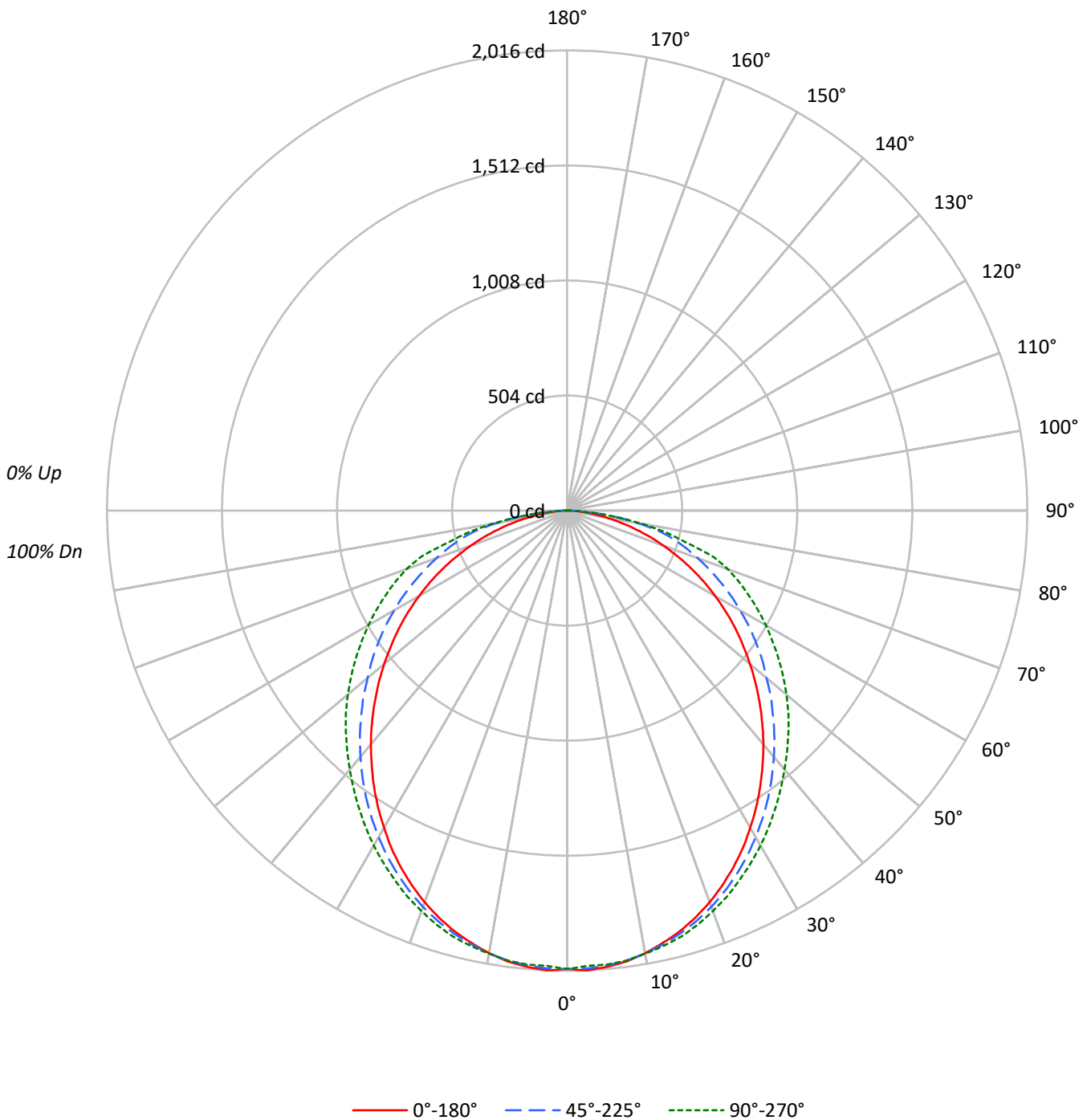
Input Watts (W): 60
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230023

CATALOG NUMBER: 24CZ-LD5-60SE-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230023

CATALOG NUMBER: 24CZ-LD5-60SE-UNV-L950-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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2702	2702	2702
5°	2710	2702	2696
10°	2690	2690	2693
15°	2658	2672	2691
20°	2614	2645	2673
25°	2559	2609	2653
30°	2493	2566	2633
35°	2423	2523	2613
40°	2350	2474	2601
45°	2270	2427	2610
50°	2190	2387	2625
55°	2109	2371	2652
60°	2014	2356	2704
65°	1909	2358	2794
70°	1765	2397	2944
75°	1579	2505	2801
80°	1320	2398	2565
85°	999	1845	1754



TEST NUMBER: P230023

CATALOG NUMBER: 24CZ-LD5-60SE-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.8	3.3
10°-20°	540.1	9.4
20°-30°	807.4	14.1
30°-40°	957.8	16.7
40°-50°	985.9	17.2
50°-60°	904.4	15.8
60°-70°	731.2	12.8
70°-80°	474.6	8.3
80°-90°	130.9	2.3
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°	1537.2	26.9
0°-40°	2495.1	43.6
0°-60°	4385.3	76.6
0°-90°	5722.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5722.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2008	2008	2008	2008	2008	
5°	2006	1992	2000	1998	1996	190
15°	1908	1900	1918	1926	1932	538
25°	1724	1726	1757	1773	1787	794
35°	1475	1487	1536	1569	1591	923
45°	1193	1213	1275	1336	1371	921
55°	899	927	1011	1093	1130	803
65°	600	635	741	838	878	592
75°	304	360	482	539	539	323
85°	65	110	120	116	114	79
90°	0	0	0	0	0	



TEST NUMBER: P230023

CATALOG NUMBER: 24CZ-LD5-60SE-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2008.1	2008.1	2008.1	2008.1	2008.1
2.5°	2016.0	2000.3	2008.1	2006.2	1996.4
5°	2006.2	1992.5	2000.3	1998.3	1996.4
7.5°	1992.5	1978.7	1988.5	1986.6	1988.5
10°	1968.9	1957.2	1968.9	1970.9	1970.9
12.5°	1939.6	1929.8	1945.4	1949.4	1953.3
15°	1908.2	1900.4	1918.0	1925.8	1931.7
17.5°	1869.0	1863.1	1884.7	1894.5	1902.3
20°	1825.9	1824.0	1847.5	1857.3	1867.1
22.5°	1776.9	1776.9	1804.4	1816.1	1829.8
25°	1724.0	1726.0	1757.4	1773.0	1786.7
27.5°	1667.2	1669.2	1706.4	1726.0	1741.7
30°	1604.5	1612.4	1651.6	1677.0	1694.7
32.5°	1541.8	1551.6	1594.7	1624.1	1643.7
35°	1475.2	1487.0	1536.0	1569.3	1590.8
37.5°	1406.7	1420.4	1473.3	1510.5	1536.0
40°	1338.1	1353.8	1408.6	1451.7	1481.1
42.5°	1265.6	1283.2	1344.0	1394.9	1426.3
45°	1193.1	1212.7	1275.4	1336.1	1371.4
47.5°	1120.6	1144.1	1210.8	1277.4	1314.6
50°	1046.2	1069.7	1140.2	1216.6	1253.9
52.5°	971.7	999.2	1077.5	1155.9	1193.1
55°	899.2	926.7	1010.9	1093.2	1130.4
57.5°	824.8	852.2	944.3	1030.5	1067.7
60°	748.4	779.7	875.7	963.9	1005.0
62.5°	673.9	707.3	809.1	903.2	942.3
65°	599.5	634.8	740.6	838.5	877.7
67.5°	523.1	564.2	673.9	773.9	815.0
70°	448.6	493.7	609.3	709.2	748.4
72.5°	376.2	425.1	544.6	646.5	670.0
75°	303.7	360.5	481.9	538.8	538.8
77.5°	235.1	297.8	411.4	433.0	444.7
80°	170.4	239.0	309.5	335.0	331.1
82.5°	113.6	182.2	221.4	221.4	215.5
85°	64.7	109.7	119.5	115.6	113.6
87.5°	27.4	41.1	37.2	29.4	25.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)