

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: P261002

Luminaire Tested: **24CZ-LD5-60-S-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261002  
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-LD5-60-S-UNV-L83050-W2A1-U-3000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5814.0 lumens  
Efficiency: N/A  
Efficacy: 131.6 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

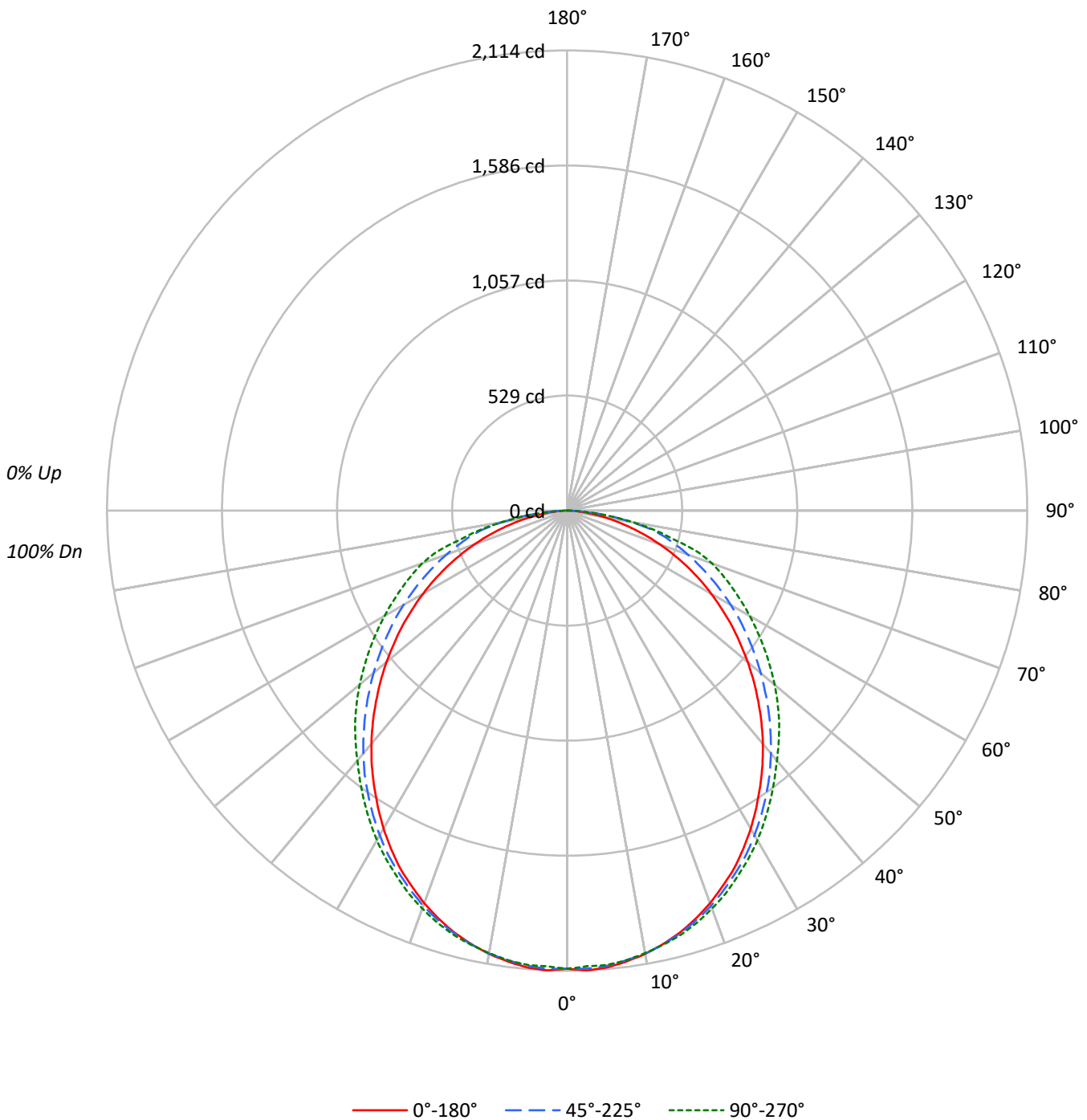
Input Watts (W): 44.179464  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P261002

CATALOG NUMBER: 24CZ-LD5-60-S-UNV-L83050-W2A1-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P261002

CATALOG NUMBER: 24CZ-LD5-60-S-UNV-L83050-W2A1-U-3000K

**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°	2832	2832	2832
5°	2845	2835	2830
10°	2825	2823	2820
15°	2794	2800	2811
20°	2748	2767	2787
25°	2694	2723	2751
30°	2621	2675	2717
35°	2539	2618	2672
40°	2457	2559	2633
45°	2363	2492	2621
50°	2268	2430	2604
55°	2169	2378	2596
60°	2056	2337	2608
65°	1934	2310	2661
70°	1781	2321	2785
75°	1579	2404	2595
80°	1319	2278	2338
85°	985	1822	1672



TEST NUMBER: P261002

CATALOG NUMBER: 24CZ-LD5-60-S-UNV-L83050-W2A1-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	199.0	3.4
10°-20°	565.9	9.7
20°-30°	843.4	14.5
30°-40°	992.8	17.1
40°-50°	1008.9	17.4
50°-60°	907.1	15.6
60°-70°	716.6	12.3
70°-80°	454.6	7.8
80°-90°	125.5	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°	1608.4	27.7
0°-40°	2601.2	44.7
0°-60°	4517.3	77.7
0°-90°	5814.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5814.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2105	2105	2105	2105	2105	
5°	2107	2089	2099	2095	2095	200
15°	2006	1996	2010	2016	2018	565
25°	1815	1813	1834	1846	1853	834
35°	1546	1555	1594	1612	1627	967
45°	1242	1259	1310	1348	1377	958
55°	925	948	1014	1080	1107	826
65°	607	638	726	805	836	602
75°	304	356	462	503	499	323
85°	64	110	118	108	108	78
90°	0	0	0	0	0	



TEST NUMBER: P261002

CATALOG NUMBER: 24CZ-LD5-60-S-UNV-L83050-W2A1-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2104.8	2104.8	2104.8	2104.8	2104.8
2.5°	2114.4	2099.0	2106.7	2102.8	2095.1
5°	2106.7	2089.3	2099.0	2095.1	2095.1
7.5°	2089.3	2075.8	2083.5	2081.6	2083.5
10°	2068.0	2054.5	2066.1	2066.1	2064.1
12.5°	2039.0	2027.4	2040.9	2040.9	2042.9
15°	2006.1	1996.4	2010.0	2015.8	2017.7
17.5°	1965.5	1955.8	1973.2	1979.0	1984.8
20°	1919.1	1915.2	1932.6	1938.4	1946.1
22.5°	1866.8	1866.8	1884.2	1892.0	1903.6
25°	1814.6	1812.7	1833.9	1845.5	1853.3
27.5°	1752.7	1754.6	1781.7	1793.3	1803.0
30°	1686.9	1690.8	1721.7	1735.3	1748.8
32.5°	1617.3	1625.0	1659.8	1675.3	1688.8
35°	1545.7	1555.4	1594.1	1611.5	1626.9
37.5°	1474.1	1487.7	1528.3	1545.7	1563.1
40°	1398.7	1410.3	1456.7	1478.0	1499.3
42.5°	1321.3	1336.8	1383.2	1414.1	1439.3
45°	1242.0	1259.4	1309.7	1348.4	1377.4
47.5°	1162.7	1185.9	1234.2	1286.5	1311.6
50°	1083.3	1106.6	1160.7	1218.8	1243.9
52.5°	1002.1	1025.3	1087.2	1147.2	1174.3
55°	924.7	947.9	1013.7	1079.5	1106.6
57.5°	843.5	868.6	942.1	1009.8	1036.9
60°	764.1	789.3	868.6	940.2	969.2
62.5°	686.8	713.8	797.0	872.5	901.5
65°	607.4	638.4	725.5	804.8	835.7
67.5°	530.1	564.9	655.8	739.0	771.9
70°	452.7	493.3	590.0	675.2	708.0
72.5°	377.2	421.7	524.3	609.4	626.8
75°	303.7	356.0	462.4	503.0	499.1
77.5°	234.1	292.1	392.7	400.4	412.1
80°	170.2	234.1	294.0	309.5	301.8
82.5°	112.2	176.0	210.9	203.1	201.2
85°	63.8	110.3	118.0	108.3	108.3
87.5°	27.1	44.5	38.7	29.0	27.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)