

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: P261080

Luminaire Tested: **24CZ-LD5-60-S-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261080  
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-L93050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5746.6 lumens  
Efficiency: N/A  
Efficacy: 124.6 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

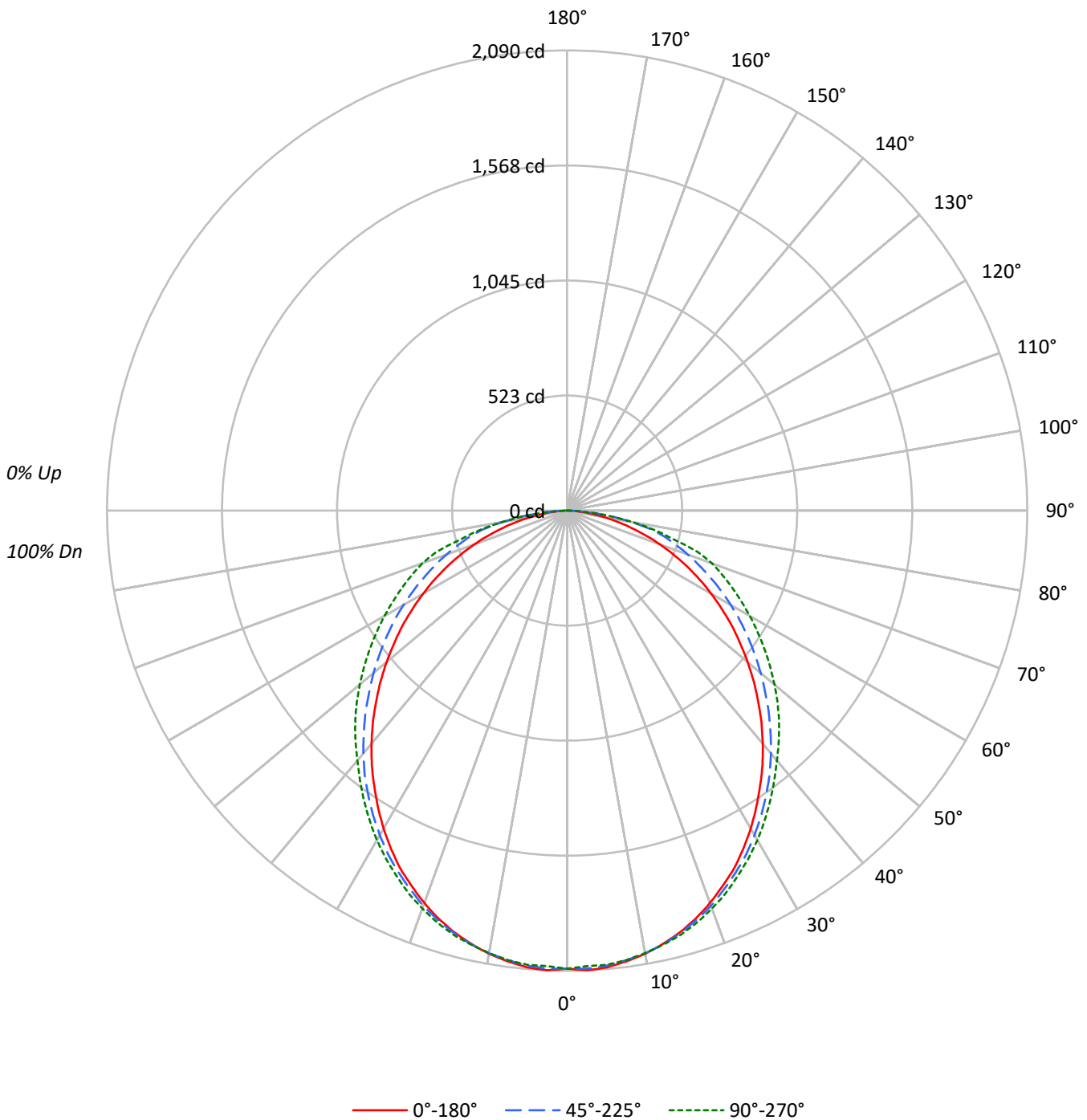
Input Watts (W): 46.127256  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2799	2799	2799
5°	2812	2802	2797
10°	2793	2790	2787
15°	2762	2767	2778
20°	2716	2735	2754
25°	2663	2691	2719
30°	2590	2644	2685
35°	2509	2588	2641
40°	2428	2529	2603
45°	2336	2463	2590
50°	2241	2402	2574
55°	2144	2350	2566
60°	2032	2310	2578
65°	1911	2283	2630
70°	1760	2294	2753
75°	1561	2376	2564
80°	1304	2252	2311
85°	974	1800	1653



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.7	3.4
10°-20°	559.4	9.7
20°-30°	833.6	14.5
30°-40°	981.3	17.1
40°-50°	997.2	17.4
50°-60°	896.6	15.6
60°-70°	708.3	12.3
70°-80°	449.4	7.8
80°-90°	124.0	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°	1589.7	27.7
0°-40°	2571.0	44.7
0°-60°	4464.9	77.7
0°-90°	5746.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5746.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2080	2080	2080	2080	2080	
5°	2082	2065	2075	2071	2071	197
15°	1983	1973	1987	1992	1994	559
25°	1794	1792	1813	1824	1832	825
35°	1528	1537	1576	1593	1608	956
45°	1228	1245	1294	1333	1361	947
55°	914	937	1002	1067	1094	816
65°	600	631	717	795	826	595
75°	300	352	457	497	493	320
85°	63	109	117	107	107	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2080.4	2080.4	2080.4	2080.4	2080.4
2.5°	2089.9	2074.6	2082.3	2078.5	2070.8
5°	2082.3	2065.1	2074.6	2070.8	2070.8
7.5°	2065.1	2051.7	2059.3	2057.4	2059.3
10°	2044.0	2030.6	2042.1	2042.1	2040.2
12.5°	2015.4	2003.9	2017.3	2017.3	2019.2
15°	1982.8	1973.3	1986.7	1992.4	1994.3
17.5°	1942.7	1933.1	1950.3	1956.1	1961.8
20°	1896.8	1893.0	1910.2	1915.9	1923.6
22.5°	1845.2	1845.2	1862.4	1870.0	1881.5
25°	1793.5	1791.6	1812.7	1824.1	1831.8
27.5°	1732.4	1734.3	1761.0	1772.5	1782.1
30°	1667.3	1671.2	1701.8	1715.2	1728.5
32.5°	1598.5	1606.2	1640.6	1655.9	1669.3
35°	1527.8	1537.3	1575.6	1592.8	1608.1
37.5°	1457.0	1470.4	1510.6	1527.8	1545.0
40°	1382.4	1393.9	1439.8	1460.8	1481.9
42.5°	1306.0	1321.3	1367.2	1397.7	1422.6
45°	1227.6	1244.8	1294.5	1332.7	1361.4
47.5°	1149.2	1172.1	1219.9	1271.5	1296.4
50°	1070.8	1093.7	1147.3	1204.6	1229.5
52.5°	990.5	1013.4	1074.6	1133.9	1160.6
55°	914.0	936.9	1001.9	1067.0	1093.7
57.5°	833.7	858.5	931.2	998.1	1024.9
60°	755.3	780.1	858.5	929.3	958.0
62.5°	678.8	705.6	787.8	862.4	891.0
65°	600.4	631.0	717.0	795.4	826.0
67.5°	523.9	558.3	648.2	730.4	762.9
70°	447.4	487.6	583.2	667.3	699.8
72.5°	372.9	416.8	518.2	602.3	619.5
75°	300.2	351.8	457.0	497.1	493.3
77.5°	231.4	288.7	388.2	395.8	407.3
80°	168.3	231.4	290.6	305.9	298.3
82.5°	110.9	174.0	208.4	200.8	198.9
85°	63.1	109.0	116.6	107.1	107.1
87.5°	26.8	44.0	38.2	28.7	26.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)