

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: P261003

Luminaire Tested: **24CZ-LD5-60-S-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261003  
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-3500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6153.0 lumens  
Efficiency: N/A  
Efficacy: 139.0 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

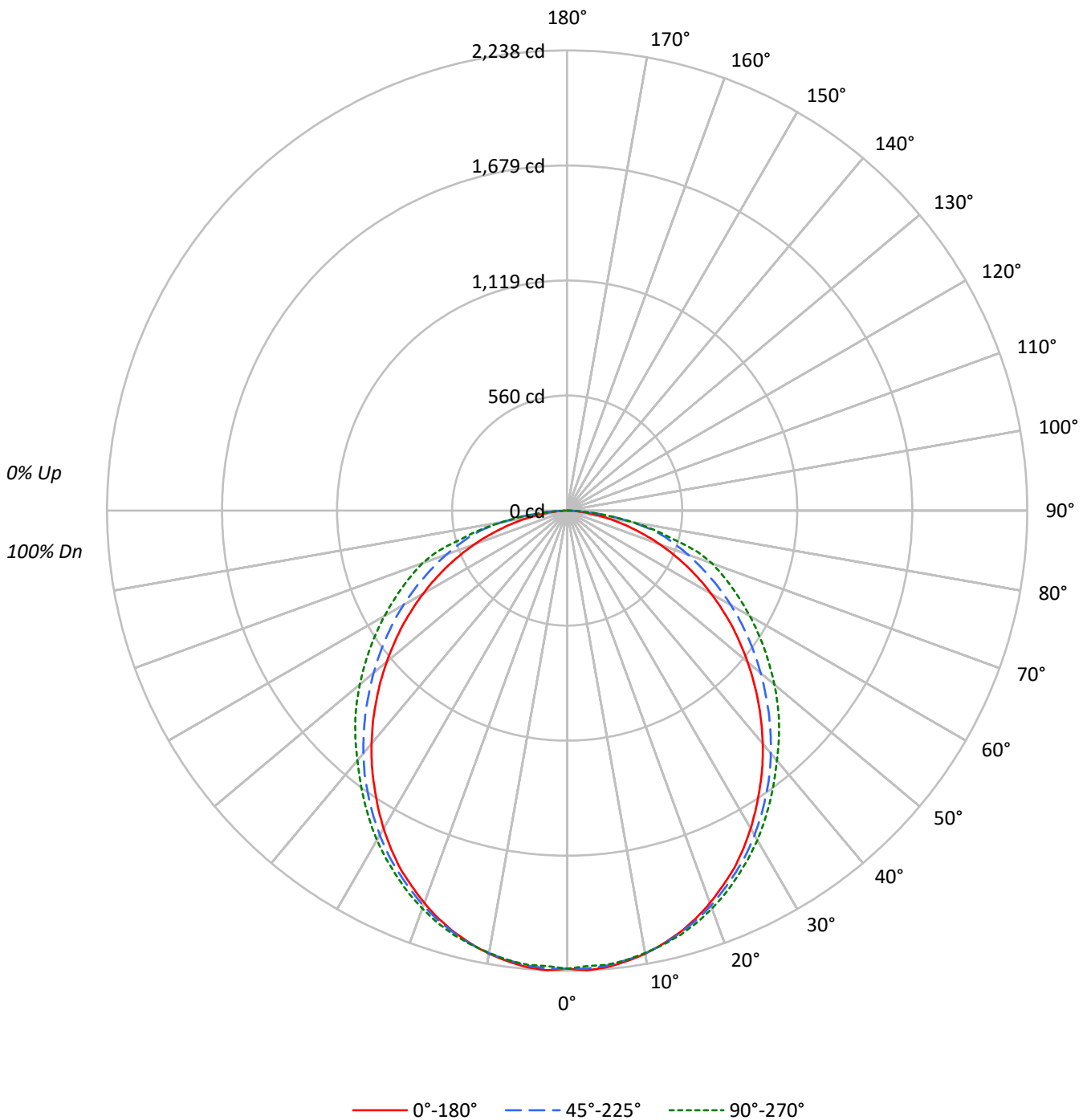
Input Watts (W): 44.268  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					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°	2997	2997	2997
5°	3011	3000	2995
10°	2990	2987	2985
15°	2957	2963	2975
20°	2908	2929	2949
25°	2851	2881	2912
30°	2774	2831	2875
35°	2687	2771	2828
40°	2600	2708	2787
45°	2501	2637	2774
50°	2400	2571	2756
55°	2296	2517	2747
60°	2176	2474	2760
65°	2047	2444	2816
70°	1885	2456	2948
75°	1671	2544	2746
80°	1396	2411	2475
85°	1044	1928	1771



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.6	3.4
10°-20°	599.0	9.7
20°-30°	892.6	14.5
30°-40°	1050.7	17.1
40°-50°	1067.8	17.4
50°-60°	960.0	15.6
60°-70°	758.4	12.3
70°-80°	481.1	7.8
80°-90°	132.8	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°	1702.2	27.7
0°-40°	2752.9	44.7
0°-60°	4780.7	77.7
0°-90°	6153.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6153.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2228	2228	2228	2228	2228	
5°	2230	2211	2221	2217	2217	211
15°	2123	2113	2127	2133	2135	598
25°	1920	1918	1941	1953	1961	883
35°	1636	1646	1687	1705	1722	1023
45°	1314	1333	1386	1427	1458	1014
55°	979	1003	1073	1142	1171	874
65°	643	676	768	852	884	637
75°	321	377	489	532	528	342
85°	68	117	125	115	115	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2227.5	2227.5	2227.5	2227.5	2227.5
2.5°	2237.7	2221.4	2229.5	2225.5	2217.3
5°	2229.5	2211.1	2221.4	2217.3	2217.3
7.5°	2211.1	2196.8	2205.0	2202.9	2205.0
10°	2188.6	2174.3	2186.6	2186.6	2184.5
12.5°	2157.9	2145.6	2159.9	2159.9	2162.0
15°	2123.1	2112.8	2127.2	2133.3	2135.4
17.5°	2080.1	2069.9	2088.3	2094.4	2100.6
20°	2031.0	2026.9	2045.3	2051.4	2059.6
22.5°	1975.7	1975.7	1994.1	2002.3	2014.6
25°	1920.4	1918.4	1940.9	1953.2	1961.3
27.5°	1854.9	1856.9	1885.6	1897.9	1908.1
30°	1785.3	1789.4	1822.1	1836.5	1850.8
32.5°	1711.6	1719.8	1756.6	1773.0	1787.3
35°	1635.8	1646.1	1687.0	1705.4	1721.8
37.5°	1560.1	1574.4	1617.4	1635.8	1654.2
40°	1480.2	1492.5	1541.6	1564.2	1586.7
42.5°	1398.3	1414.7	1463.8	1496.6	1523.2
45°	1314.4	1332.8	1386.0	1427.0	1457.7
47.5°	1230.4	1255.0	1306.2	1361.5	1388.1
50°	1146.5	1171.1	1228.4	1289.8	1316.4
52.5°	1060.5	1085.1	1150.6	1214.1	1242.7
55°	978.6	1003.2	1072.8	1142.4	1171.1
57.5°	892.6	919.3	997.1	1068.7	1097.4
60°	808.7	835.3	919.3	995.0	1025.7
62.5°	726.8	755.5	843.5	923.3	954.1
65°	642.9	675.6	767.8	851.7	884.4
67.5°	561.0	597.8	694.0	782.1	816.9
70°	479.1	522.1	624.4	714.5	749.3
72.5°	399.2	446.3	554.8	644.9	663.3
75°	321.4	376.7	489.3	532.3	528.2
77.5°	247.7	309.1	415.6	423.8	436.1
80°	180.2	247.7	311.2	327.6	319.4
82.5°	118.7	186.3	223.2	215.0	212.9
85°	67.6	116.7	124.9	114.7	114.7
87.5°	28.7	47.1	40.9	30.7	28.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)