

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: P260665

Luminaire Tested: **24CZ-LD5-65-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260665  
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-LD5-65-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6104.6 lumens  
Efficiency: N/A  
Efficacy: 119.8 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

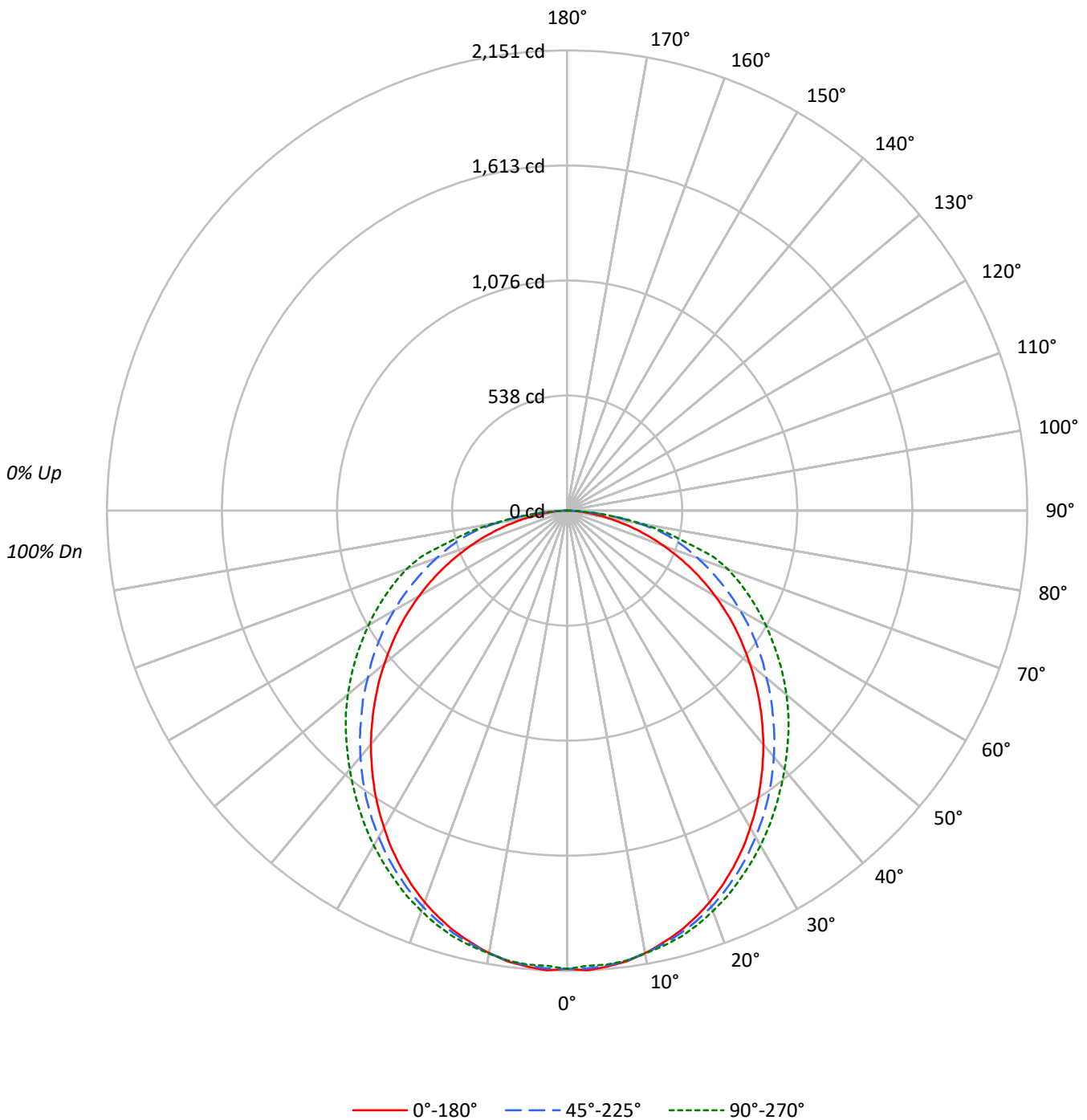
Input Watts (W): 50.972556  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2883	2883	2883
5°	2891	2882	2877
10°	2870	2870	2873
15°	2836	2850	2871
20°	2789	2822	2852
25°	2731	2783	2830
30°	2660	2738	2809
35°	2585	2692	2788
40°	2507	2640	2775
45°	2422	2589	2784
50°	2336	2546	2800
55°	2251	2530	2829
60°	2148	2514	2885
65°	2036	2515	2981
70°	1883	2557	3141
75°	1684	2673	2988
80°	1409	2559	2737
85°	1065	1968	1871



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.5	3.3
10°-20°	576.2	9.4
20°-30°	861.4	14.1
30°-40°	1021.9	16.7
40°-50°	1051.8	17.2
50°-60°	964.9	15.8
60°-70°	780.1	12.8
70°-80°	506.3	8.3
80°-90°	139.6	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°	1640.0	26.9
0°-40°	2661.9	43.6
0°-60°	4678.6	76.6
0°-90°	6104.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6104.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2142	2142	2142	2142	2142	
5°	2140	2126	2134	2132	2130	203
15°	2036	2027	2046	2055	2061	573
25°	1839	1841	1875	1892	1906	847
35°	1574	1586	1639	1674	1697	984
45°	1273	1294	1361	1426	1463	982
55°	959	989	1078	1166	1206	857
65°	640	677	790	895	936	632
75°	324	385	514	575	575	344
85°	69	117	128	123	121	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2142.4	2142.4	2142.4	2142.4	2142.4
2.5°	2150.8	2134.0	2142.4	2140.3	2129.9
5°	2140.3	2125.7	2134.0	2132.0	2129.9
7.5°	2125.7	2111.1	2121.5	2119.4	2121.5
10°	2100.6	2088.1	2100.6	2102.7	2102.7
12.5°	2069.3	2058.8	2075.5	2079.7	2083.9
15°	2035.8	2027.4	2046.3	2054.6	2060.9
17.5°	1994.0	1987.7	2010.7	2021.2	2029.5
20°	1948.0	1945.9	1971.0	1981.5	1991.9
22.5°	1895.8	1895.8	1925.0	1937.6	1952.2
25°	1839.3	1841.4	1874.9	1891.6	1906.2
27.5°	1778.7	1780.8	1820.5	1841.4	1858.1
30°	1711.8	1720.2	1762.0	1789.2	1808.0
32.5°	1644.9	1655.4	1701.4	1732.7	1753.6
35°	1573.9	1586.4	1638.7	1674.2	1697.2
37.5°	1500.7	1515.4	1571.8	1611.5	1638.7
40°	1427.6	1444.3	1502.8	1548.8	1580.2
42.5°	1350.2	1369.0	1433.8	1488.2	1521.6
45°	1272.9	1293.8	1360.7	1425.5	1463.1
47.5°	1195.6	1220.6	1291.7	1362.8	1402.5
50°	1116.1	1141.2	1216.5	1298.0	1337.7
52.5°	1036.7	1066.0	1149.6	1233.2	1272.9
55°	959.4	988.6	1078.5	1166.3	1206.0
57.5°	880.0	909.2	1007.5	1099.4	1139.1
60°	798.4	831.9	934.3	1028.4	1072.2
62.5°	719.0	754.5	863.2	963.6	1005.4
65°	639.6	677.2	790.1	894.6	936.4
67.5°	558.1	602.0	719.0	825.6	869.5
70°	478.6	526.7	650.0	756.6	798.4
72.5°	401.3	453.6	581.1	689.8	714.8
75°	324.0	384.6	514.2	574.8	574.8
77.5°	250.8	317.7	438.9	461.9	474.5
80°	181.8	255.0	330.2	357.4	353.2
82.5°	121.2	194.4	236.2	236.2	229.9
85°	69.0	117.0	127.5	123.3	121.2
87.5°	29.3	43.9	39.7	31.4	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)