

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: P260777

Luminaire Tested: **24CZ-LD5-70-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260777  
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-LD5-70-UNV-L82765-W2A1-U-4000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7038.0 lumens  
Efficiency: N/A  
Efficacy: 129.6 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

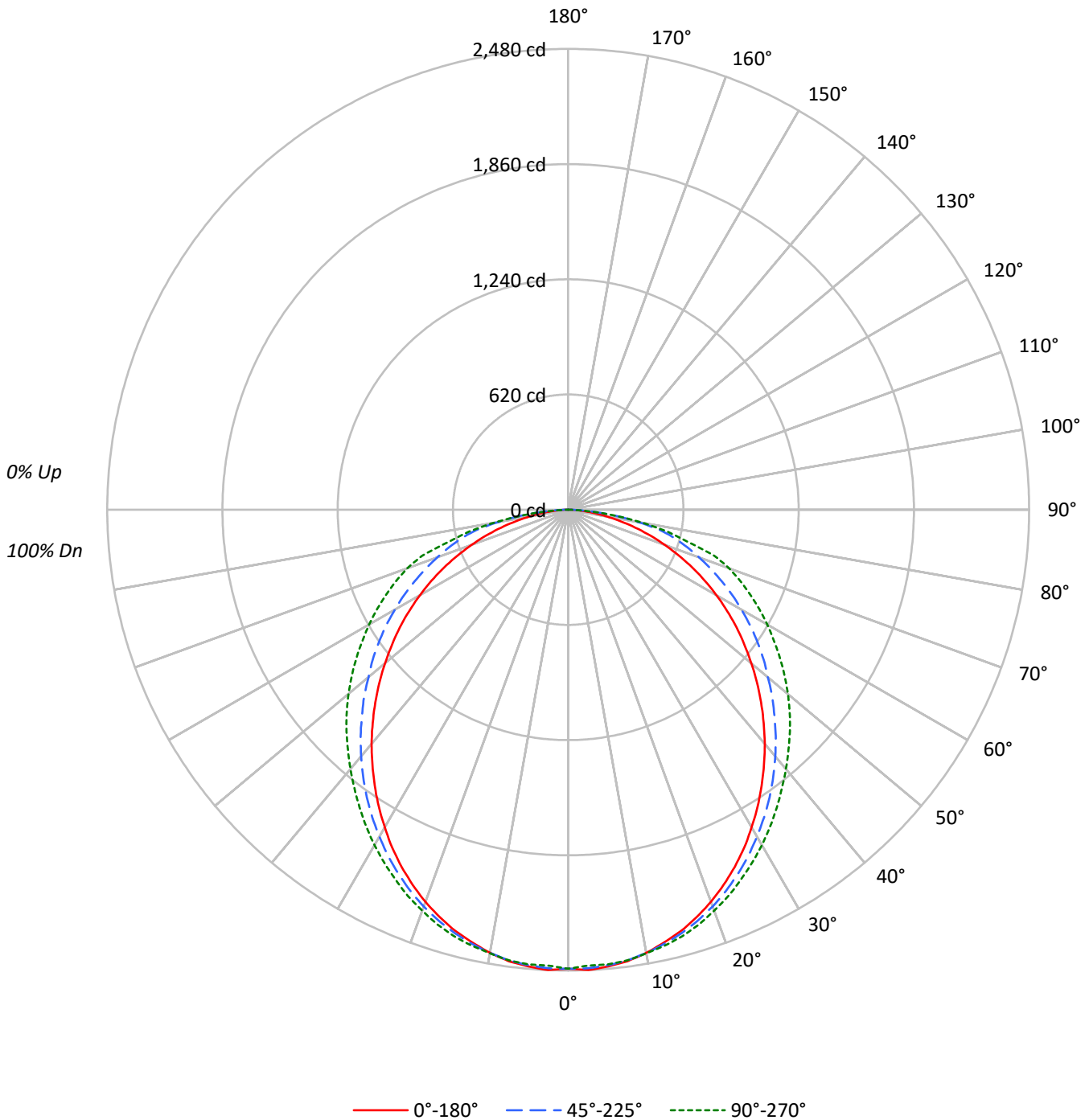
Input Watts (W): 54.312  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3323	3323	3323
5°	3333	3323	3316
10°	3309	3309	3312
15°	3269	3286	3310
20°	3216	3254	3288
25°	3148	3209	3263
30°	3066	3156	3238
35°	2980	3103	3214
40°	2891	3043	3200
45°	2792	2985	3210
50°	2694	2936	3228
55°	2595	2917	3262
60°	2477	2898	3327
65°	2348	2900	3437
70°	2171	2948	3621
75°	1942	3082	3445
80°	1624	2950	3155
85°	1227	2269	2158



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	233.4	3.3
10°-20°	664.3	9.4
20°-30°	993.1	14.1
30°-40°	1178.1	16.7
40°-50°	1212.6	17.2
50°-60°	1112.4	15.8
60°-70°	899.4	12.8
70°-80°	583.7	8.3
80°-90°	161.0	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°	1890.8	26.9
0°-40°	3068.9	43.6
0°-60°	5393.9	76.6
0°-90°	7038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7038.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2470	2470	2470	2470	2470	
5°	2468	2451	2460	2458	2456	234
15°	2347	2337	2359	2369	2376	661
25°	2121	2123	2162	2181	2198	976
35°	1814	1829	1889	1930	1957	1135
45°	1468	1492	1569	1643	1687	1133
55°	1106	1140	1243	1345	1390	988
65°	737	781	911	1031	1080	729
75°	374	443	593	663	663	397
85°	80	135	147	142	140	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2470.0	2470.0	2470.0	2470.0	2470.0
2.5°	2479.6	2460.3	2470.0	2467.6	2455.5
5°	2467.6	2450.7	2460.3	2457.9	2455.5
7.5°	2450.7	2433.8	2445.9	2443.5	2445.9
10°	2421.8	2407.3	2421.8	2424.2	2424.2
12.5°	2385.6	2373.6	2392.9	2397.7	2402.5
15°	2347.1	2337.4	2359.1	2368.8	2376.0
17.5°	2298.9	2291.7	2318.2	2330.2	2339.8
20°	2245.9	2243.5	2272.4	2284.4	2296.5
22.5°	2185.6	2185.6	2219.4	2233.8	2250.7
25°	2120.6	2123.0	2161.5	2180.8	2197.7
27.5°	2050.7	2053.1	2098.9	2123.0	2142.2
30°	1973.6	1983.2	2031.4	2062.7	2084.4
32.5°	1896.5	1908.5	1961.5	1997.7	2021.8
35°	1814.5	1829.0	1889.2	1930.2	1956.7
37.5°	1730.2	1747.1	1812.1	1857.9	1889.2
40°	1645.8	1665.1	1732.6	1785.6	1821.8
42.5°	1556.7	1578.4	1653.1	1715.7	1754.3
45°	1467.5	1491.6	1568.7	1643.4	1686.8
47.5°	1378.4	1407.3	1489.2	1571.1	1616.9
50°	1286.8	1315.7	1402.5	1496.4	1542.2
52.5°	1195.2	1229.0	1325.4	1421.7	1467.5
55°	1106.1	1139.8	1243.4	1344.6	1390.4
57.5°	1014.5	1048.2	1161.5	1267.5	1313.3
60°	920.5	959.1	1077.1	1185.6	1236.2
62.5°	828.9	869.9	995.2	1110.9	1159.1
65°	737.4	780.8	910.9	1031.4	1079.6
67.5°	643.4	694.0	828.9	951.8	1002.4
70°	551.8	607.3	749.4	872.3	920.5
72.5°	462.7	522.9	669.9	795.2	824.1
75°	373.5	443.4	592.8	662.7	662.7
77.5°	289.2	366.3	506.0	532.6	547.0
80°	209.6	294.0	380.7	412.1	407.2
82.5°	139.8	224.1	272.3	272.3	265.1
85°	79.5	134.9	147.0	142.2	139.8
87.5°	33.7	50.6	45.8	36.1	31.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)