

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: P276435

Luminaire Tested: **24CZ2-75HE-S-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P276435  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-75HE-S-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6998.2 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

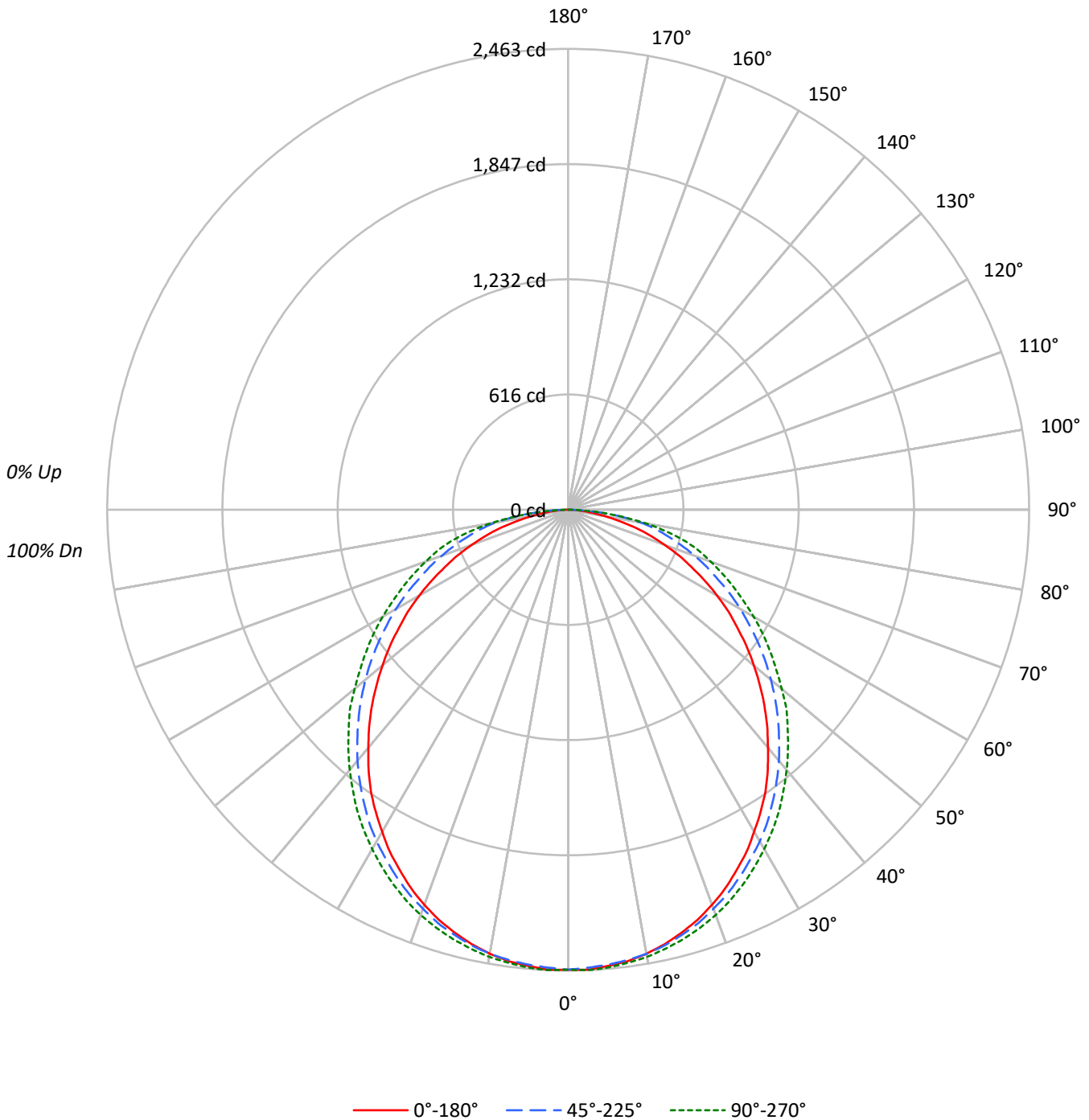
Input Watts (W): 60.856968  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	3308	3308	3308
5°	3306	3296	3318
10°	3292	3292	3316
15°	3260	3276	3310
20°	3218	3250	3301
25°	3158	3218	3280
30°	3088	3181	3253
35°	3019	3129	3228
40°	2917	3077	3190
45°	2821	3016	3155
50°	2713	2959	3117
55°	2592	2904	3087
60°	2471	2859	3081
65°	2314	2810	3100
70°	2142	2825	3183
75°	1918	2877	3363
80°	1550	3049	3290
85°	1167	2677	2607



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.7	3.3
10°-20°	665.0	9.5
20°-30°	999.7	14.3
30°-40°	1190.8	17.0
40°-50°	1218.8	17.4
50°-60°	1097.2	15.7
60°-70°	861.7	12.3
70°-80°	559.2	8.0
80°-90°	173.0	2.5
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°	1897.5	27.1
0°-40°	3088.3	44.1
0°-60°	5404.3	77.2
0°-90°	6998.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6998.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2458	2458	2458	2458	2458	
5°	2447	2452	2441	2454	2456	233
15°	2341	2347	2352	2372	2376	660
25°	2127	2145	2167	2203	2210	980
35°	1838	1861	1905	1952	1965	1147
45°	1483	1518	1585	1645	1658	1143
55°	1105	1154	1238	1303	1316	990
65°	727	782	882	956	974	724
75°	369	440	554	629	647	390
85°	76	140	173	169	169	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2458.5	2458.5	2458.5	2458.5	2458.5
2.5°	2460.7	2460.7	2449.6	2460.7	2463.0
5°	2447.4	2451.8	2440.7	2454.1	2456.3
7.5°	2434.1	2434.1	2427.4	2440.7	2443.0
10°	2409.6	2411.8	2409.6	2425.2	2427.4
12.5°	2378.5	2382.9	2385.2	2400.7	2402.9
15°	2340.7	2347.4	2351.8	2371.8	2376.3
17.5°	2298.5	2305.1	2316.3	2338.5	2342.9
20°	2247.3	2256.2	2269.6	2298.5	2305.1
22.5°	2191.8	2200.7	2222.9	2249.6	2260.7
25°	2127.3	2145.1	2167.3	2202.9	2209.6
27.5°	2062.8	2078.4	2107.3	2145.1	2154.0
30°	1987.3	2011.7	2047.3	2085.1	2094.0
32.5°	1913.9	1938.4	1980.6	2020.6	2031.7
35°	1838.3	1860.6	1905.0	1951.7	1965.0
37.5°	1751.6	1780.5	1829.4	1876.1	1889.5
40°	1660.5	1696.1	1751.6	1800.5	1816.1
42.5°	1573.8	1611.6	1667.2	1720.5	1738.3
45°	1482.7	1518.2	1584.9	1644.9	1658.3
47.5°	1389.3	1429.3	1500.5	1560.5	1582.7
50°	1295.9	1338.2	1413.8	1476.0	1489.3
52.5°	1202.6	1247.0	1327.1	1393.8	1400.4
55°	1104.8	1153.7	1238.1	1302.6	1316.0
57.5°	1015.9	1058.1	1149.2	1215.9	1231.5
60°	918.1	964.7	1062.5	1124.8	1144.8
62.5°	824.7	873.6	975.8	1038.1	1055.9
65°	726.9	782.5	882.5	955.8	973.6
67.5°	642.4	695.8	802.5	873.6	891.4
70°	544.6	604.6	718.0	791.3	809.1
72.5°	460.1	522.4	635.7	706.9	733.6
75°	369.0	440.1	553.5	629.1	646.9
77.5°	280.1	362.3	477.9	535.7	535.7
80°	200.1	286.8	393.5	420.1	424.6
82.5°	131.2	215.6	291.2	289.0	289.0
85°	75.6	140.0	173.4	168.9	168.9
87.5°	28.9	57.8	62.2	62.2	60.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)