

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: P230062

Luminaire Tested: **24CZ-LD5-70-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230062  
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-LD5-70-S-UNV-L940-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6375.0 lumens  
Efficiency: N/A  
Efficacy: 99.3 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

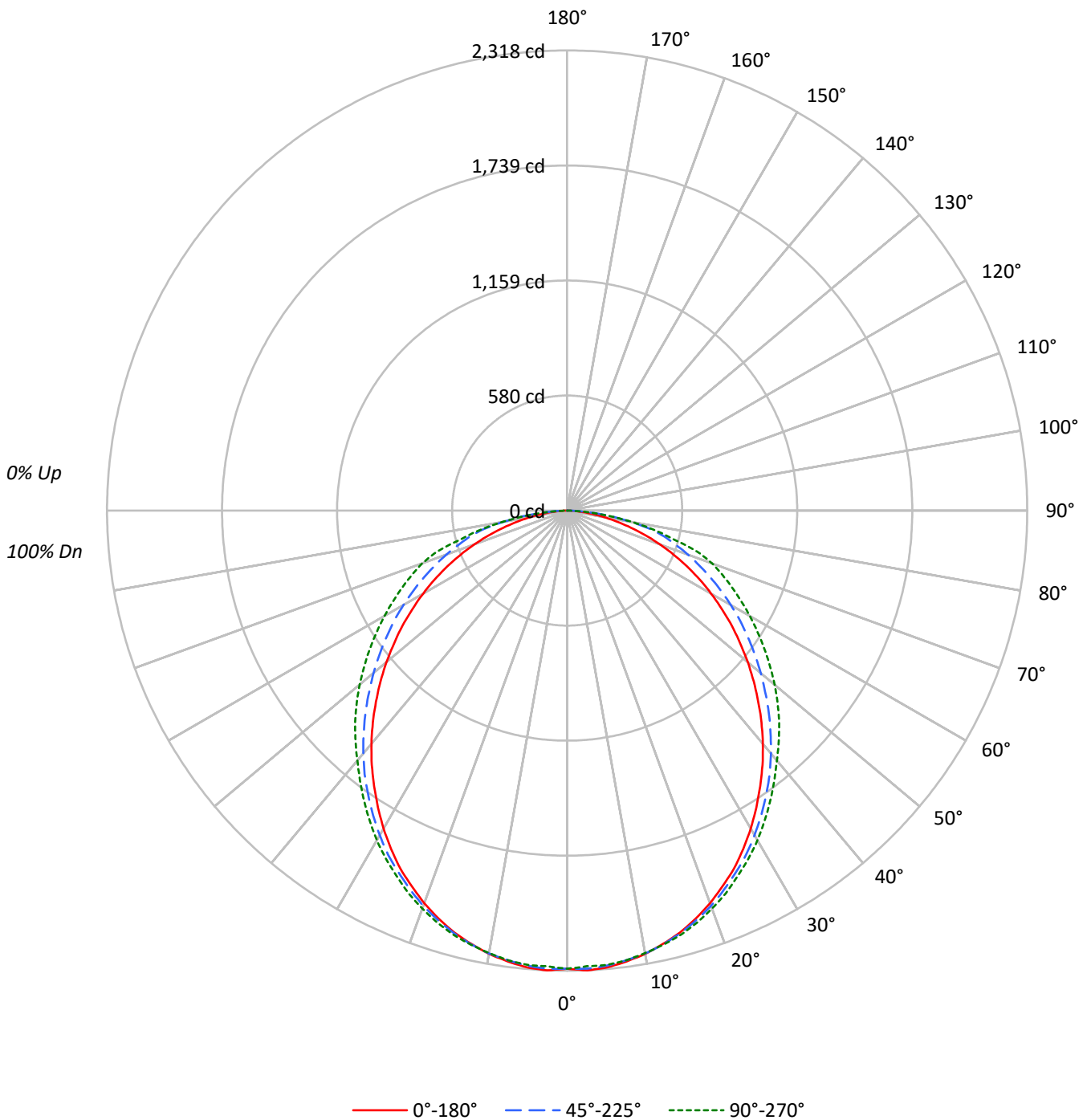
Input Watts (W): 64.22  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3105	3105	3105
5°	3120	3108	3103
10°	3098	3095	3092
15°	3064	3070	3082
20°	3013	3034	3055
25°	2954	2985	3017
30°	2874	2933	2979
35°	2784	2871	2930
40°	2694	2806	2887
45°	2591	2733	2874
50°	2487	2664	2855
55°	2378	2607	2846
60°	2255	2563	2860
65°	2121	2533	2918
70°	1953	2545	3054
75°	1731	2636	2845
80°	1447	2498	2564
85°	1081	1998	1834



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	218.2	3.4
10°-20°	620.6	9.7
20°-30°	924.8	14.5
30°-40°	1088.6	17.1
40°-50°	1106.3	17.4
50°-60°	994.6	15.6
60°-70°	785.8	12.3
70°-80°	498.5	7.8
80°-90°	137.6	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°	1763.6	27.7
0°-40°	2852.2	44.7
0°-60°	4953.1	77.7
0°-90°	6375.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6375.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2308	2308	2308	2308	2308	
5°	2310	2291	2302	2297	2297	219
15°	2200	2189	2204	2210	2212	620
25°	1990	1988	2011	2024	2032	915
35°	1695	1705	1748	1767	1784	1060
45°	1362	1381	1436	1478	1510	1051
55°	1014	1039	1112	1184	1213	905
65°	666	700	796	882	916	660
75°	333	390	507	552	547	354
85°	70	121	129	119	119	86
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2307.9	2307.9	2307.9	2307.9	2307.9
2.5°	2318.5	2301.5	2310.0	2305.7	2297.3
5°	2310.0	2290.9	2301.5	2297.3	2297.3
7.5°	2290.9	2276.0	2284.5	2282.4	2284.5
10°	2267.6	2252.7	2265.4	2265.4	2263.3
12.5°	2235.7	2223.0	2237.9	2237.9	2240.0
15°	2199.7	2189.1	2203.9	2210.3	2212.4
17.5°	2155.1	2144.5	2163.6	2170.0	2176.4
20°	2104.2	2100.0	2119.1	2125.4	2133.9
22.5°	2047.0	2047.0	2066.1	2074.5	2087.3
25°	1989.7	1987.6	2010.9	2023.6	2032.1
27.5°	1921.8	1923.9	1953.6	1966.4	1977.0
30°	1849.7	1853.9	1887.9	1902.7	1917.6
32.5°	1773.3	1781.8	1820.0	1837.0	1851.8
35°	1694.8	1705.4	1747.9	1767.0	1783.9
37.5°	1616.4	1631.2	1675.7	1694.8	1713.9
40°	1533.6	1546.4	1597.3	1620.6	1643.9
42.5°	1448.8	1465.8	1516.7	1550.6	1578.2
45°	1361.8	1380.9	1436.1	1478.5	1510.3
47.5°	1274.8	1300.3	1353.3	1410.6	1438.2
50°	1187.9	1213.3	1272.7	1336.4	1363.9
52.5°	1098.8	1124.2	1192.1	1257.9	1287.6
55°	1013.9	1039.4	1111.5	1183.6	1213.3
57.5°	924.8	952.4	1033.0	1107.3	1137.0
60°	837.9	865.5	952.4	1030.9	1062.7
62.5°	753.0	782.7	873.9	956.7	988.5
65°	666.1	700.0	795.5	882.4	916.4
67.5°	581.2	619.4	719.1	810.3	846.4
70°	496.4	540.9	647.0	740.3	776.4
72.5°	413.6	462.4	574.8	668.2	687.3
75°	333.0	390.3	507.0	551.5	547.3
77.5°	256.7	320.3	430.6	439.1	451.8
80°	186.7	256.7	322.4	339.4	330.9
82.5°	123.0	193.0	231.2	222.7	220.6
85°	70.0	120.9	129.4	118.8	118.8
87.5°	29.7	48.8	42.4	31.8	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)