

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: P230061

Luminaire Tested: **24CZ-LD5-70-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230061  
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-L935-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

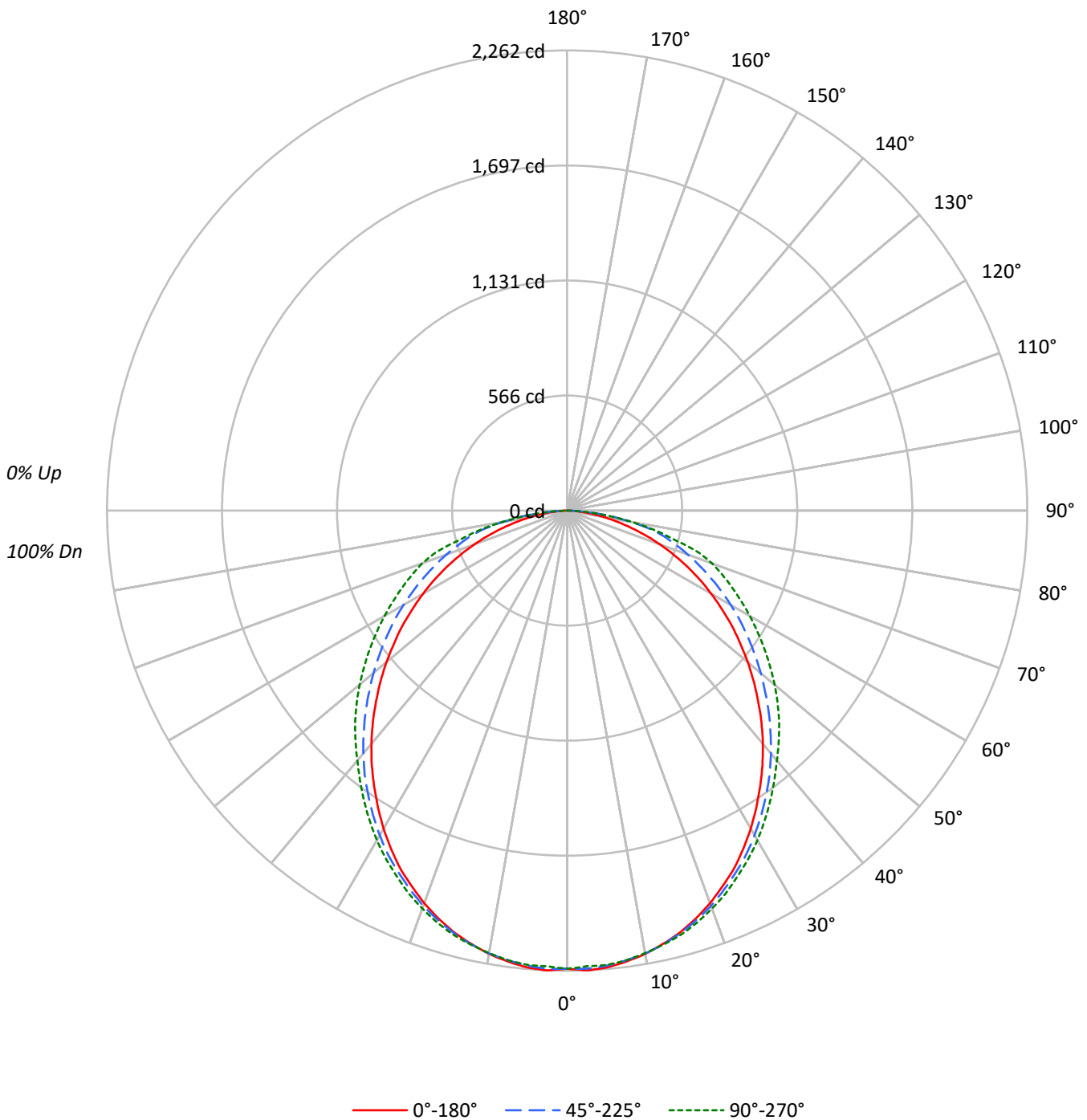
Lumens per Lamp: N/A  
Luminaire Lumens: 6221.0 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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°	3030	3030	3030
5°	3045	3033	3028
10°	3023	3020	3017
15°	2990	2996	3007
20°	2940	2961	2982
25°	2882	2913	2944
30°	2804	2862	2907
35°	2717	2802	2859
40°	2629	2738	2818
45°	2529	2667	2804
50°	2426	2600	2786
55°	2321	2544	2777
60°	2200	2501	2791
65°	2069	2471	2847
70°	1906	2484	2980
75°	1690	2572	2776
80°	1412	2438	2502
85°	1054	1950	1789



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	212.9	3.4
10°-20°	605.6	9.7
20°-30°	902.5	14.5
30°-40°	1062.3	17.1
40°-50°	1079.6	17.4
50°-60°	970.6	15.6
60°-70°	766.8	12.3
70°-80°	486.5	7.8
80°-90°	134.3	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°	1721.0	27.7
0°-40°	2783.3	44.7
0°-60°	4833.5	77.7
0°-90°	6221.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6221.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2252	2252	2252	2252	2252	
5°	2254	2236	2246	2242	2242	214
15°	2146	2136	2151	2157	2159	605
25°	1942	1940	1962	1975	1983	893
35°	1654	1664	1706	1724	1741	1035
45°	1329	1348	1401	1443	1474	1025
55°	989	1014	1085	1155	1184	884
65°	650	683	776	861	894	644
75°	325	381	495	538	534	346
85°	68	118	126	116	116	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2252.1	2252.1	2252.1	2252.1	2252.1
2.5°	2262.5	2245.9	2254.2	2250.0	2241.8
5°	2254.2	2235.6	2245.9	2241.8	2241.8
7.5°	2235.6	2221.1	2229.3	2227.3	2229.3
10°	2212.8	2198.3	2210.7	2210.7	2208.6
12.5°	2181.7	2169.3	2183.8	2183.8	2185.9
15°	2146.5	2136.2	2150.7	2156.9	2159.0
17.5°	2103.1	2092.7	2111.4	2117.6	2123.8
20°	2053.4	2049.3	2067.9	2074.1	2082.4
22.5°	1997.5	1997.5	2016.1	2024.4	2036.8
25°	1941.6	1939.6	1962.3	1974.7	1983.0
27.5°	1875.4	1877.5	1906.4	1918.9	1929.2
30°	1805.0	1809.1	1842.3	1856.8	1871.2
32.5°	1730.5	1738.8	1776.0	1792.6	1807.1
35°	1653.9	1664.2	1705.6	1724.3	1740.8
37.5°	1577.3	1591.8	1635.3	1653.9	1672.5
40°	1496.6	1509.0	1558.7	1581.4	1604.2
42.5°	1413.8	1430.3	1480.0	1513.1	1540.1
45°	1328.9	1347.5	1401.4	1442.8	1473.8
47.5°	1244.0	1268.9	1320.6	1376.5	1403.4
50°	1159.2	1184.0	1242.0	1304.1	1331.0
52.5°	1072.2	1097.1	1163.3	1227.5	1256.5
55°	989.4	1014.3	1084.7	1155.0	1184.0
57.5°	902.5	929.4	1008.1	1080.5	1109.5
60°	817.6	844.5	929.4	1006.0	1037.0
62.5°	734.8	763.8	852.8	933.6	964.6
65°	650.0	683.1	776.2	861.1	894.2
67.5°	567.2	604.4	701.7	790.7	825.9
70°	484.4	527.8	631.3	722.4	757.6
72.5°	403.6	451.3	561.0	652.0	670.7
75°	325.0	380.9	494.7	538.2	534.0
77.5°	250.5	312.6	420.2	428.5	440.9
80°	182.2	250.5	314.6	331.2	322.9
82.5°	120.1	188.4	225.6	217.3	215.3
85°	68.3	118.0	126.3	115.9	115.9
87.5°	29.0	47.6	41.4	31.0	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)