

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: P230057

Luminaire Tested: **24CZ-LD5-65-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230057  
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-LD5-65-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: 5778.0 lumens  
Efficiency: N/A  
Efficacy: 100.2 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

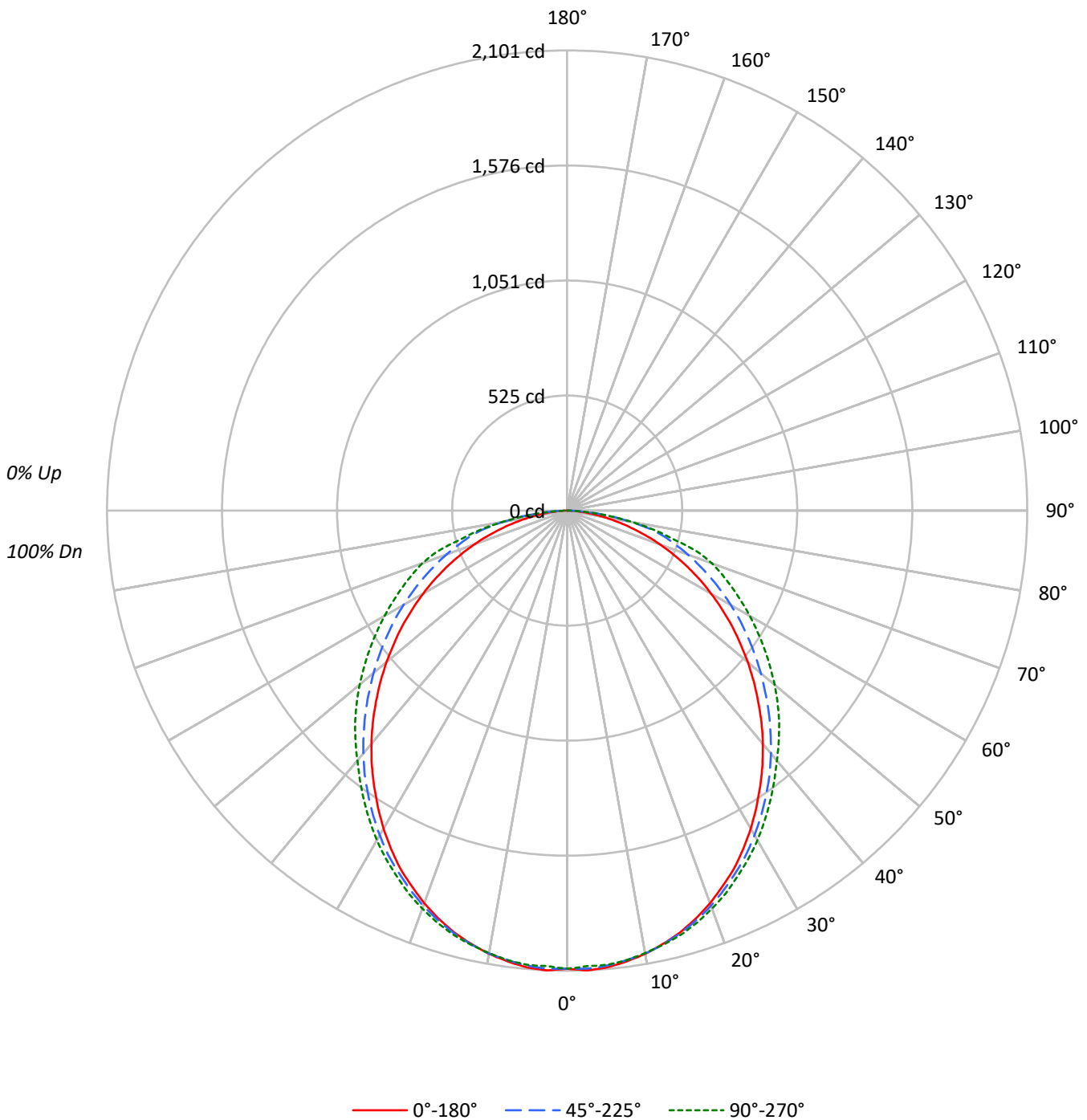
Input Watts (W): 57.64  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2814	2814	2814
5°	2828	2817	2812
10°	2808	2805	2803
15°	2777	2782	2793
20°	2731	2750	2769
25°	2677	2706	2734
30°	2605	2658	2700
35°	2523	2602	2656
40°	2441	2543	2617
45°	2349	2477	2605
50°	2254	2415	2588
55°	2156	2363	2580
60°	2044	2323	2592
65°	1922	2295	2644
70°	1770	2307	2768
75°	1569	2389	2578
80°	1311	2264	2324
85°	979	1811	1663



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.8	3.4
10°-20°	562.4	9.7
20°-30°	838.2	14.5
30°-40°	986.7	17.1
40°-50°	1002.7	17.4
50°-60°	901.5	15.6
60°-70°	712.2	12.3
70°-80°	451.8	7.8
80°-90°	124.7	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°	1598.4	27.7
0°-40°	2585.1	44.7
0°-60°	4489.3	77.7
0°-90°	5778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5778.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2092	2092	2092	2092	2092	
5°	2094	2076	2086	2082	2082	199
15°	1994	1984	1998	2003	2005	562
25°	1803	1801	1823	1834	1842	829
35°	1536	1546	1584	1602	1617	961
45°	1234	1252	1302	1340	1369	952
55°	919	942	1007	1073	1100	821
65°	604	634	721	800	830	598
75°	302	354	460	500	496	321
85°	63	110	117	108	108	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2091.7	2091.7	2091.7	2091.7	2091.7
2.5°	2101.4	2086.0	2093.7	2089.8	2082.1
5°	2093.7	2076.4	2086.0	2082.1	2082.1
7.5°	2076.4	2062.9	2070.6	2068.7	2070.6
10°	2055.2	2041.8	2053.3	2053.3	2051.4
12.5°	2026.4	2014.8	2028.3	2028.3	2030.2
15°	1993.7	1984.1	1997.5	2003.3	2005.2
17.5°	1953.3	1943.7	1961.0	1966.8	1972.5
20°	1907.2	1903.3	1920.6	1926.4	1934.1
22.5°	1855.3	1855.3	1872.6	1880.3	1891.8
25°	1803.4	1801.4	1822.6	1834.1	1841.8
27.5°	1741.8	1743.8	1770.7	1782.2	1791.8
30°	1676.5	1680.3	1711.1	1724.5	1738.0
32.5°	1607.3	1614.9	1649.6	1664.9	1678.4
35°	1536.1	1545.7	1584.2	1601.5	1616.9
37.5°	1465.0	1478.4	1518.8	1536.1	1553.4
40°	1390.0	1401.5	1447.7	1468.8	1490.0
42.5°	1313.1	1328.5	1374.6	1405.4	1430.4
45°	1234.3	1251.6	1301.6	1340.0	1368.9
47.5°	1155.5	1178.5	1226.6	1278.5	1303.5
50°	1076.6	1099.7	1153.5	1211.2	1236.2
52.5°	995.9	1019.0	1080.5	1140.1	1167.0
55°	919.0	942.1	1007.4	1072.8	1099.7
57.5°	838.2	863.2	936.3	1003.6	1030.5
60°	759.4	784.4	863.2	934.4	963.2
62.5°	682.5	709.4	792.1	867.1	895.9
65°	603.7	634.4	721.0	799.8	830.5
67.5°	526.8	561.4	651.7	734.4	767.1
70°	449.9	490.3	586.4	671.0	703.7
72.5°	374.9	419.1	521.0	605.6	622.9
75°	301.8	353.8	459.5	499.9	496.0
77.5°	232.6	290.3	390.3	398.0	409.5
80°	169.2	232.6	292.2	307.6	299.9
82.5°	111.5	175.0	209.6	201.9	199.9
85°	63.4	109.6	117.3	107.7	107.7
87.5°	26.9	44.2	38.5	28.8	26.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)