

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: P390913

Luminaire Tested: **24CZ2-100VHE-RDP-UNV-L935-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P390913  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-100VHE-RDP-UNV-L935-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5723.1 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

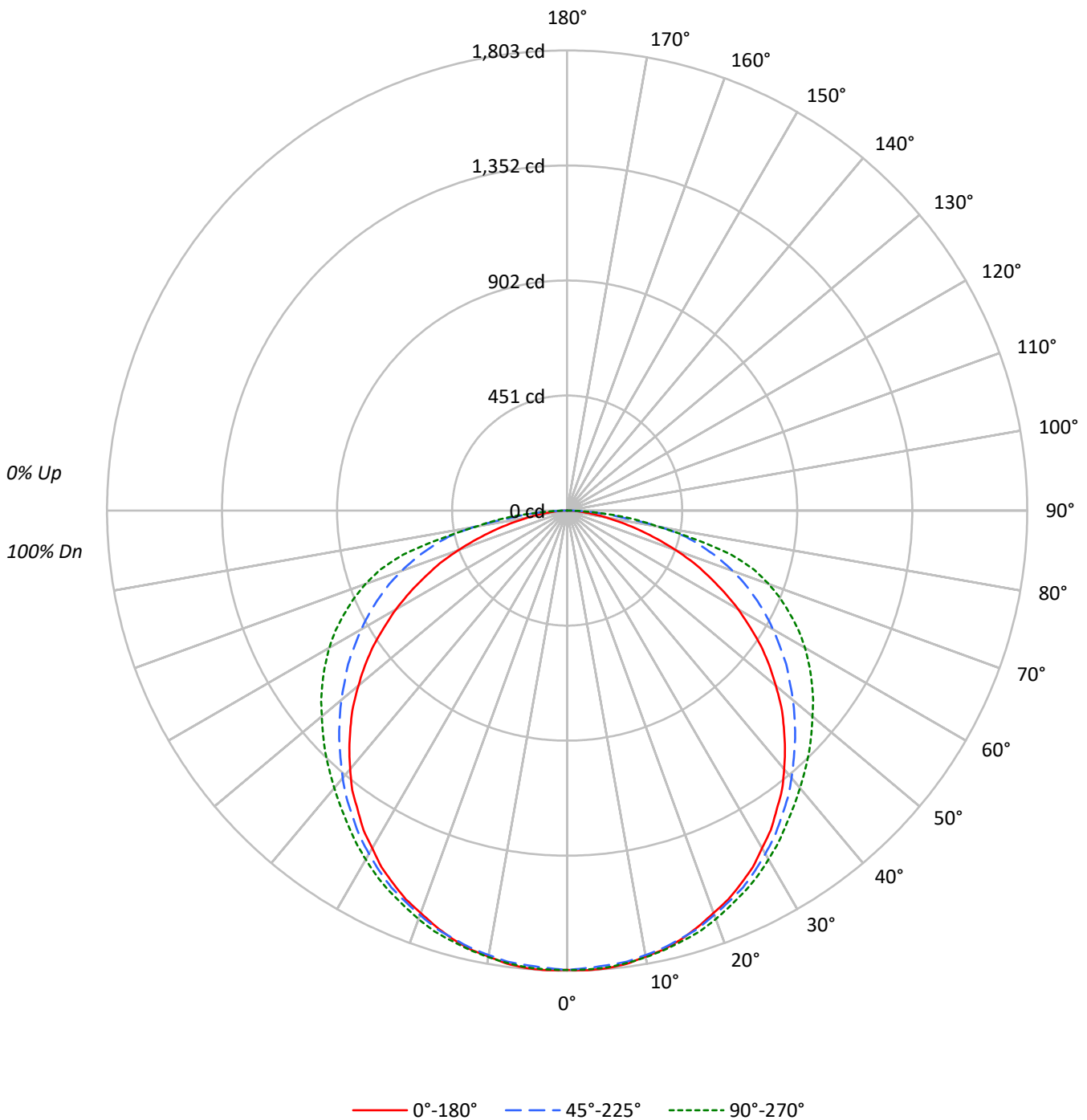
Input Watts (W): 69.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	2422	2422	2422
5°	2431	2415	2427
10°	2424	2416	2428
15°	2420	2416	2432
20°	2402	2414	2439
25°	2394	2419	2444
30°	2373	2412	2452
35°	2350	2406	2462
40°	2323	2403	2493
45°	2285	2404	2550
50°	2234	2418	2626
55°	2178	2457	2744
60°	2086	2506	2895
65°	1952	2594	3073
70°	1776	2714	3306
75°	1505	2863	3453
80°	1188	2882	2793
85°	877	2191	2455



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.7	3.0
10°-20°	491.3	8.6
20°-30°	751.4	13.1
30°-40°	918.5	16.0
40°-50°	979.0	17.1
50°-60°	936.0	16.4
60°-70°	792.9	13.9
70°-80°	532.9	9.3
80°-90°	150.3	2.6
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°	1413.4	24.7
0°-40°	2332.0	40.7
0°-60°	4247.0	74.2
0°-90°	5723.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5723.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1800	1800	1800	1800	1800	
5°	1800	1797	1788	1797	1797	171
15°	1737	1737	1734	1749	1746	490
25°	1612	1618	1629	1644	1646	743
35°	1431	1442	1465	1493	1499	896
45°	1201	1221	1263	1317	1340	926
55°	928	962	1048	1130	1170	827
65°	613	676	815	923	965	609
75°	290	395	551	644	664	310
85°	57	116	142	153	159	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1799.8	1799.8	1799.8	1799.8	1799.8
2.5°	1802.6	1802.6	1794.1	1799.8	1799.8
5°	1799.8	1796.9	1788.4	1796.9	1796.9
7.5°	1791.2	1788.4	1782.7	1791.2	1788.4
10°	1774.2	1774.2	1768.5	1777.0	1777.0
12.5°	1760.0	1757.2	1754.3	1765.7	1762.8
15°	1737.3	1737.3	1734.5	1748.7	1745.8
17.5°	1708.9	1711.8	1714.6	1725.9	1728.8
20°	1677.7	1683.4	1686.2	1703.2	1703.2
22.5°	1649.3	1652.1	1657.8	1674.8	1674.8
25°	1612.4	1618.1	1629.4	1643.6	1646.5
27.5°	1575.5	1578.3	1592.5	1612.4	1615.2
30°	1527.2	1535.8	1552.8	1575.5	1578.3
32.5°	1484.7	1493.2	1513.0	1535.8	1541.4
35°	1430.7	1442.1	1464.8	1493.2	1498.8
37.5°	1382.5	1391.0	1419.4	1450.6	1459.1
40°	1322.8	1339.9	1368.3	1405.2	1419.4
42.5°	1263.2	1280.3	1314.3	1362.6	1379.6
45°	1200.8	1220.7	1263.2	1317.2	1339.9
47.5°	1138.3	1161.0	1209.3	1271.7	1297.3
50°	1067.4	1095.7	1155.4	1226.3	1254.7
52.5°	999.2	1033.3	1098.6	1178.1	1215.0
55°	928.3	962.3	1047.5	1129.8	1169.6
57.5°	848.8	894.2	987.9	1081.6	1124.1
60°	775.0	817.6	931.1	1033.3	1075.9
62.5°	695.5	752.3	874.3	982.2	1024.8
65°	613.2	675.6	814.7	922.6	965.2
67.5°	539.4	607.5	755.1	863.0	905.6
70°	451.4	536.5	689.8	797.7	840.3
72.5°	369.0	462.7	621.7	726.7	766.5
75°	289.5	394.6	550.7	644.4	664.3
77.5°	215.7	326.5	476.9	516.6	502.5
80°	153.3	261.2	371.9	352.0	360.5
82.5°	99.4	198.7	229.9	261.2	269.7
85°	56.8	116.4	141.9	153.3	159.0
87.5°	25.5	42.6	56.8	56.8	53.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)