

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: P391754

Luminaire Tested: **24CZ2-85VHE-HRP-UNV-L935-CD1-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: P391754
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: 24CZ2-85VHE-HRP-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6172.0 lumens
Efficiency: N/A
Efficacy: 106.6 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

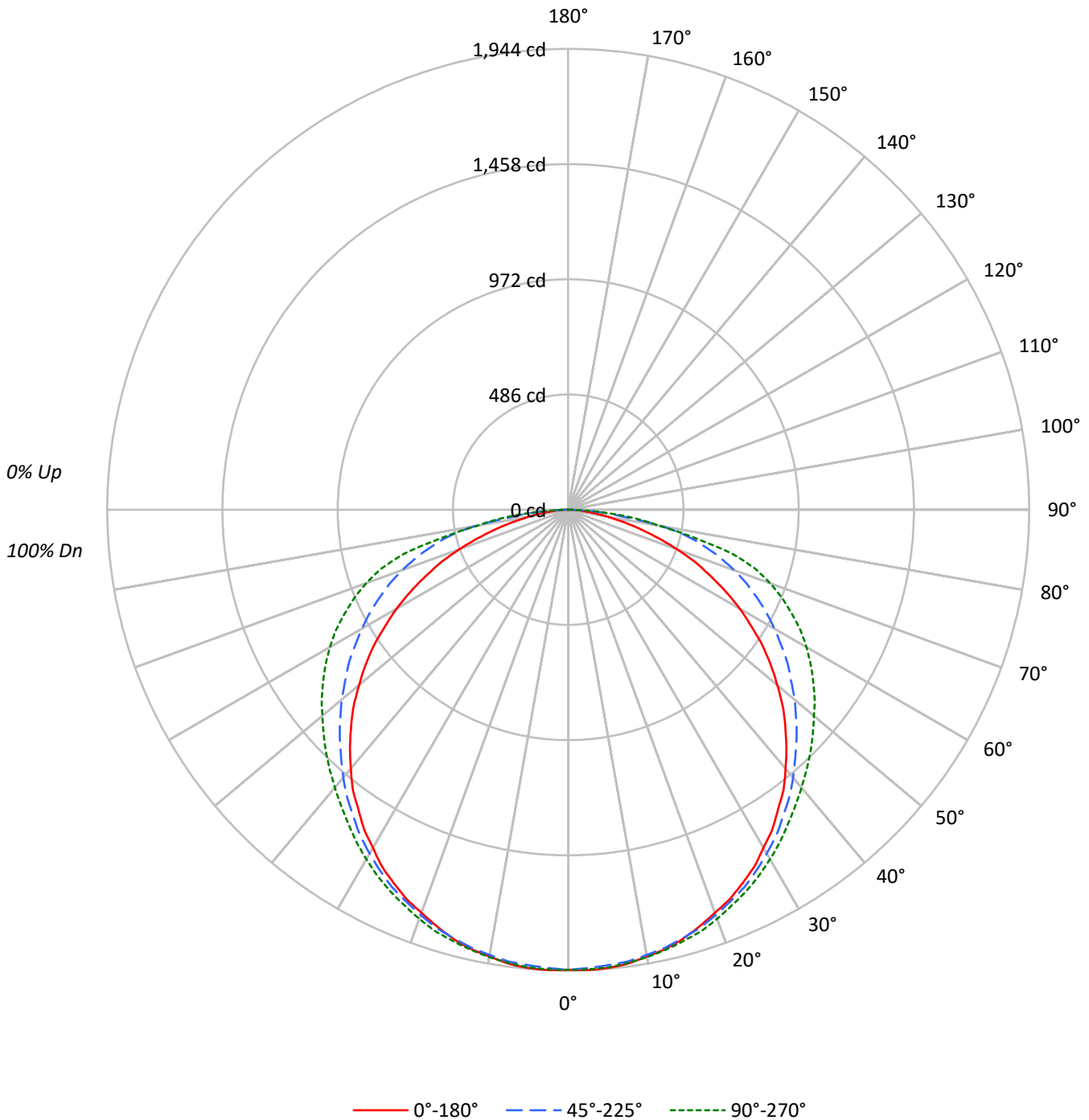
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2611	2611	2611
5°	2621	2605	2617
10°	2614	2606	2618
15°	2610	2606	2623
20°	2591	2604	2630
25°	2582	2609	2636
30°	2559	2602	2644
35°	2534	2595	2655
40°	2506	2592	2689
45°	2464	2592	2750
50°	2409	2608	2832
55°	2348	2650	2959
60°	2249	2702	3122
65°	2105	2797	3314
70°	1915	2926	3565
75°	1624	3087	3724
80°	1281	3107	3013
85°	945	2364	2646



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.1	3.0
10°-20°	529.9	8.6
20°-30°	810.3	13.1
30°-40°	990.6	16.0
40°-50°	1055.8	17.1
50°-60°	1009.4	16.4
60°-70°	855.1	13.9
70°-80°	574.7	9.3
80°-90°	162.1	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°	1524.3	24.7
0°-40°	2514.9	40.7
0°-60°	4580.1	74.2
0°-90°	6172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6172.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1941	1941	1941	1941	1941	
5°	1941	1938	1929	1938	1938	184
15°	1874	1874	1870	1886	1883	528
25°	1739	1745	1757	1772	1776	801
35°	1543	1555	1580	1610	1616	967
45°	1295	1316	1362	1420	1445	999
55°	1001	1038	1130	1218	1261	892
65°	661	729	879	995	1041	657
75°	312	426	594	695	716	334
85°	61	126	153	165	171	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1940.9	1940.9	1940.9	1940.9	1940.9
2.5°	1944.0	1944.0	1934.8	1940.9	1940.9
5°	1940.9	1937.9	1928.7	1937.9	1937.9
7.5°	1931.7	1928.7	1922.5	1931.7	1928.7
10°	1913.4	1913.4	1907.2	1916.4	1916.4
12.5°	1898.1	1895.0	1891.9	1904.2	1901.1
15°	1873.6	1873.6	1870.5	1885.8	1882.8
17.5°	1843.0	1846.0	1849.1	1861.3	1864.4
20°	1809.3	1815.4	1818.5	1836.8	1836.8
22.5°	1778.7	1781.7	1787.8	1806.2	1806.2
25°	1738.9	1745.0	1757.2	1772.5	1775.6
27.5°	1699.1	1702.1	1717.4	1738.9	1741.9
30°	1647.0	1656.2	1674.6	1699.1	1702.1
32.5°	1601.1	1610.3	1631.7	1656.2	1662.3
35°	1542.9	1555.2	1579.7	1610.3	1616.4
37.5°	1490.9	1500.1	1530.7	1564.4	1573.6
40°	1426.6	1445.0	1475.6	1515.4	1530.7
42.5°	1362.3	1380.7	1417.4	1469.5	1487.8
45°	1295.0	1316.4	1362.3	1420.5	1445.0
47.5°	1227.6	1252.1	1304.1	1371.5	1399.1
50°	1151.1	1181.7	1246.0	1322.5	1353.1
52.5°	1077.6	1114.3	1184.8	1270.5	1310.3
55°	1001.1	1037.8	1129.7	1218.4	1261.3
57.5°	915.4	964.3	1065.4	1166.4	1212.3
60°	835.8	881.7	1004.1	1114.3	1160.3
62.5°	750.0	811.3	942.9	1059.2	1105.2
65°	661.3	728.6	878.6	994.9	1040.9
67.5°	581.7	655.1	814.3	930.7	976.6
70°	486.8	578.6	743.9	860.2	906.2
72.5°	398.0	499.0	670.4	783.7	826.6
75°	312.3	425.5	593.9	694.9	716.4
77.5°	232.7	352.1	514.3	557.2	541.9
80°	165.3	281.6	401.0	379.6	388.8
82.5°	107.1	214.3	248.0	281.6	290.8
85°	61.2	125.5	153.1	165.3	171.4
87.5°	27.6	45.9	61.2	61.2	58.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)