

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: P388943

Luminaire Tested: **24CZ2-70VHE-UNV-L930-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: P388943
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70VHE-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

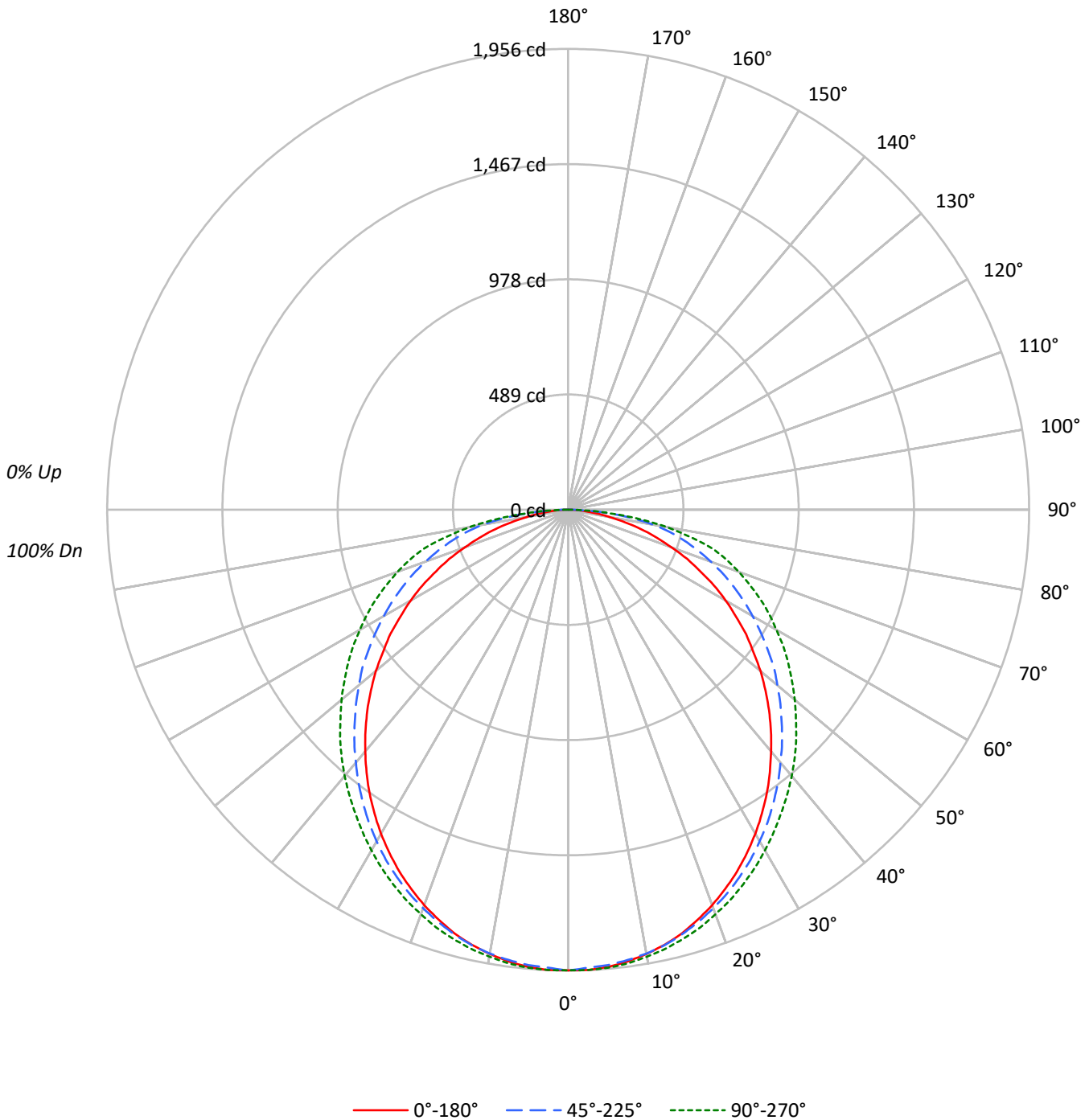
Lumens per Lamp: N/A
Luminaire Lumens: 5824.2 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 45.7
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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2631	2631	2631
5°	2631	2620	2636
10°	2616	2613	2632
15°	2594	2599	2626
20°	2558	2577	2616
25°	2516	2554	2606
30°	2467	2525	2594
35°	2414	2494	2586
40°	2352	2462	2591
45°	2293	2437	2604
50°	2230	2425	2628
55°	2161	2421	2677
60°	2077	2432	2746
65°	1968	2469	2865
70°	1828	2531	3028
75°	1667	2658	3284
80°	1371	2861	3283
85°	1050	2641	2820



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.9	3.2
10°-20°	528.0	9.1
20°-30°	794.5	13.6
30°-40°	952.2	16.3
40°-50°	992.3	17.0
50°-60°	923.2	15.9
60°-70°	760.3	13.1
70°-80°	517.8	8.9
80°-90°	171.0	2.9
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°	1507.5	25.9
0°-40°	2459.6	42.2
0°-60°	4375.1	75.1
0°-90°	5824.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5824.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1956	1956	1956	1956	1956	
5°	1948	1948	1940	1950	1952	185
15°	1862	1864	1866	1884	1886	525
25°	1695	1703	1720	1749	1755	780
35°	1470	1487	1518	1559	1574	919
45°	1205	1230	1281	1345	1368	929
55°	921	952	1032	1114	1141	821
65°	618	671	776	867	900	614
75°	321	393	511	603	632	338
85°	68	132	171	183	183	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1955.5	1955.5	1955.5	1955.5	1955.5
2.5°	1955.5	1955.5	1945.7	1955.5	1955.5
5°	1947.7	1947.7	1939.9	1949.6	1951.6
7.5°	1934.1	1936.0	1928.2	1939.9	1941.8
10°	1914.6	1916.6	1912.7	1924.4	1926.3
12.5°	1891.3	1893.3	1893.3	1906.9	1908.8
15°	1862.2	1864.1	1866.0	1883.5	1885.5
17.5°	1825.2	1831.1	1834.9	1856.3	1860.2
20°	1786.3	1792.2	1800.0	1823.3	1827.2
22.5°	1741.6	1749.4	1763.0	1788.3	1794.1
25°	1695.0	1702.8	1720.3	1749.4	1755.2
27.5°	1642.5	1654.2	1675.5	1706.6	1714.4
30°	1588.1	1599.7	1625.0	1658.1	1669.7
32.5°	1529.8	1545.3	1574.5	1611.4	1623.1
35°	1469.5	1487.0	1518.1	1558.9	1574.5
37.5°	1405.4	1424.8	1461.7	1506.4	1525.9
40°	1339.3	1362.6	1401.5	1454.0	1475.3
42.5°	1273.2	1294.6	1343.2	1399.5	1422.9
45°	1205.2	1230.4	1281.0	1345.1	1368.4
47.5°	1135.2	1160.4	1220.7	1288.7	1310.1
50°	1065.2	1090.5	1158.5	1230.4	1255.7
52.5°	989.4	1022.4	1100.2	1172.1	1197.4
55°	921.4	952.5	1032.2	1113.8	1141.0
57.5°	843.6	880.5	968.0	1053.5	1082.7
60°	771.7	810.6	903.9	991.3	1020.5
62.5°	697.8	740.6	839.7	929.1	962.2
65°	618.1	670.6	775.6	866.9	900.0
67.5°	546.2	600.6	711.4	804.7	833.9
70°	464.6	530.7	643.4	736.7	769.7
72.5°	394.6	460.7	579.3	670.6	703.7
75°	320.7	392.6	511.2	602.6	631.7
77.5°	246.9	326.6	445.1	515.1	524.8
80°	176.9	260.5	369.3	410.1	423.7
82.5°	124.4	200.2	272.1	299.3	307.1
85°	68.0	132.2	171.1	182.7	182.7
87.5°	29.2	56.4	68.0	70.0	71.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)