

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: P389883

Luminaire Tested: **24CZ2-70VHE-S-UNV-L940-CD1-SDWPD1-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: P389883
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70VHE-S-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6181.8 lumens
Efficiency: N/A
Efficacy: 135.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

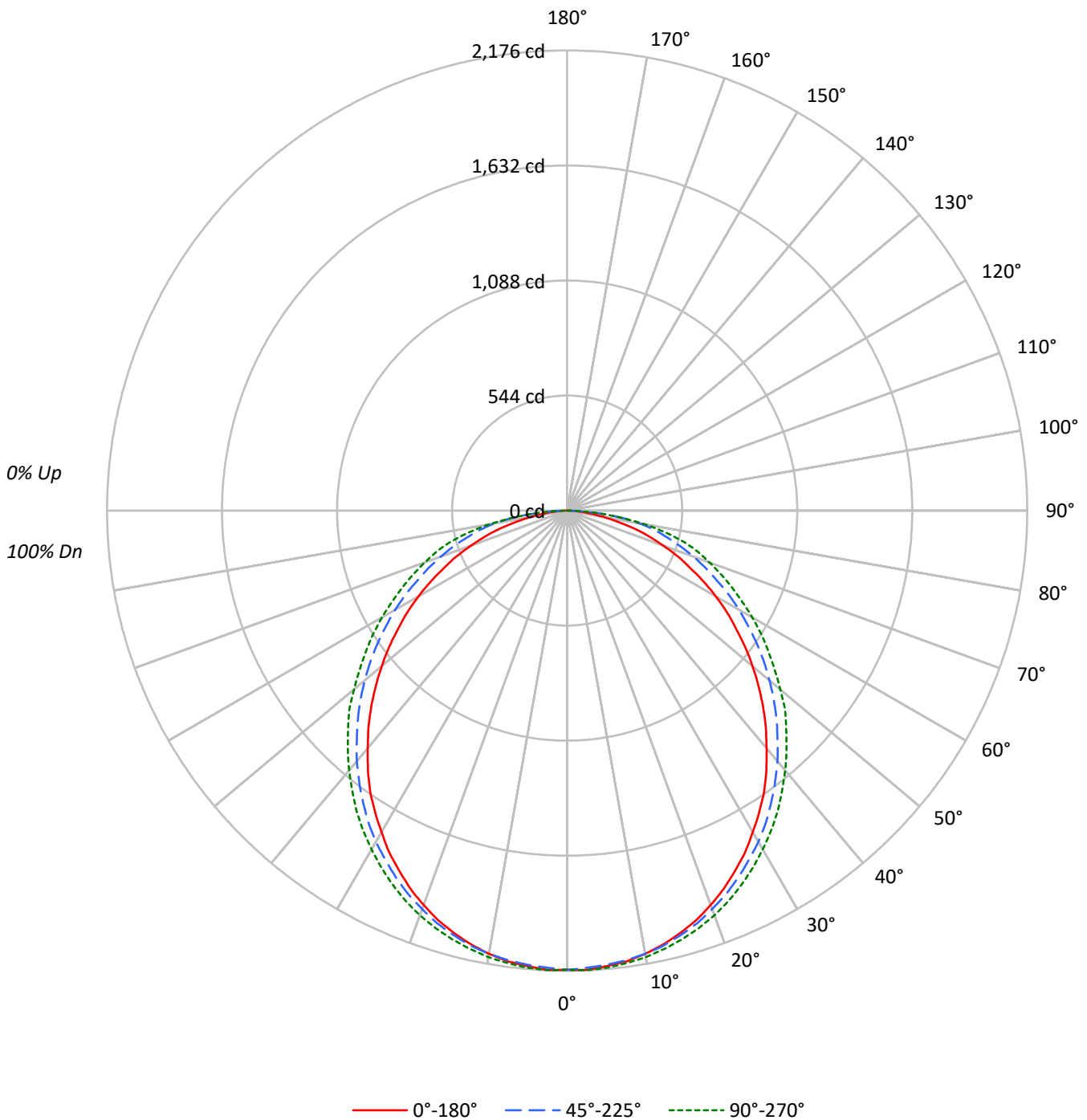
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2922	2922	2922
5°	2920	2912	2930
10°	2908	2908	2930
15°	2880	2894	2924
20°	2842	2871	2916
25°	2790	2842	2898
30°	2727	2810	2874
35°	2667	2764	2851
40°	2576	2718	2818
45°	2492	2664	2787
50°	2396	2614	2754
55°	2289	2566	2727
60°	2182	2526	2721
65°	2044	2482	2738
70°	1893	2495	2812
75°	1695	2542	2970
80°	1369	2693	2906
85°	1031	2365	2303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.6	3.3
10°-20°	587.5	9.5
20°-30°	883.1	14.3
30°-40°	1051.9	17.0
40°-50°	1076.6	17.4
50°-60°	969.2	15.7
60°-70°	761.2	12.3
70°-80°	494.0	8.0
80°-90°	152.8	2.5
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°	1676.1	27.1
0°-40°	2728.0	44.1
0°-60°	4773.9	77.2
0°-90°	6181.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6181.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2172	2172	2172	2172	2172	
5°	2162	2166	2156	2168	2170	205
15°	2068	2074	2078	2095	2099	583
25°	1879	1895	1914	1946	1952	866
35°	1624	1644	1683	1724	1736	1013
45°	1310	1341	1400	1453	1465	1010
55°	976	1019	1094	1151	1162	875
65°	642	691	780	844	860	639
75°	326	389	489	556	571	345
85°	67	124	153	149	149	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2171.7	2171.7	2171.7	2171.7	2171.7
2.5°	2173.7	2173.7	2163.9	2173.7	2175.6
5°	2161.9	2165.8	2156.0	2167.8	2169.7
7.5°	2150.1	2150.1	2144.2	2156.0	2158.0
10°	2128.5	2130.5	2128.5	2142.3	2144.2
12.5°	2101.0	2104.9	2106.9	2120.7	2122.6
15°	2067.6	2073.5	2077.5	2095.1	2099.1
17.5°	2030.3	2036.2	2046.0	2065.7	2069.6
20°	1985.2	1993.0	2004.8	2030.3	2036.2
22.5°	1936.1	1943.9	1963.6	1987.1	1996.9
25°	1879.1	1894.8	1914.5	1945.9	1951.8
27.5°	1822.2	1835.9	1861.5	1894.8	1902.7
30°	1755.4	1777.0	1808.4	1841.8	1849.7
32.5°	1690.6	1712.2	1749.5	1784.9	1794.7
35°	1623.9	1643.5	1682.8	1724.0	1735.8
37.5°	1547.3	1572.8	1616.0	1657.3	1669.0
40°	1466.8	1498.2	1547.3	1590.5	1604.2
42.5°	1390.2	1423.6	1472.7	1519.8	1535.5
45°	1309.7	1341.1	1400.0	1453.0	1464.8
47.5°	1227.2	1262.6	1325.4	1378.4	1398.1
50°	1144.8	1182.1	1248.8	1303.8	1315.6
52.5°	1062.3	1101.6	1172.3	1231.2	1237.0
55°	975.9	1019.1	1093.7	1150.7	1162.4
57.5°	897.4	934.7	1015.2	1074.1	1087.8
60°	811.0	852.2	938.6	993.6	1011.2
62.5°	728.5	771.7	862.0	917.0	932.7
65°	642.1	691.2	779.5	844.3	860.0
67.5°	567.5	614.6	708.8	771.7	787.4
70°	481.1	534.1	634.2	699.0	714.7
72.5°	406.5	461.4	561.6	624.4	648.0
75°	326.0	388.8	488.9	555.7	571.4
77.5°	247.4	320.1	422.2	473.2	473.2
80°	176.7	253.3	347.6	371.1	375.0
82.5°	115.9	190.5	257.2	255.3	255.3
85°	66.8	123.7	153.2	149.2	149.2
87.5°	25.5	51.1	55.0	55.0	53.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)