

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: P389425

Luminaire Tested: **22CZ2-80VHE-S-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: P389425
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-S-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7099.5 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

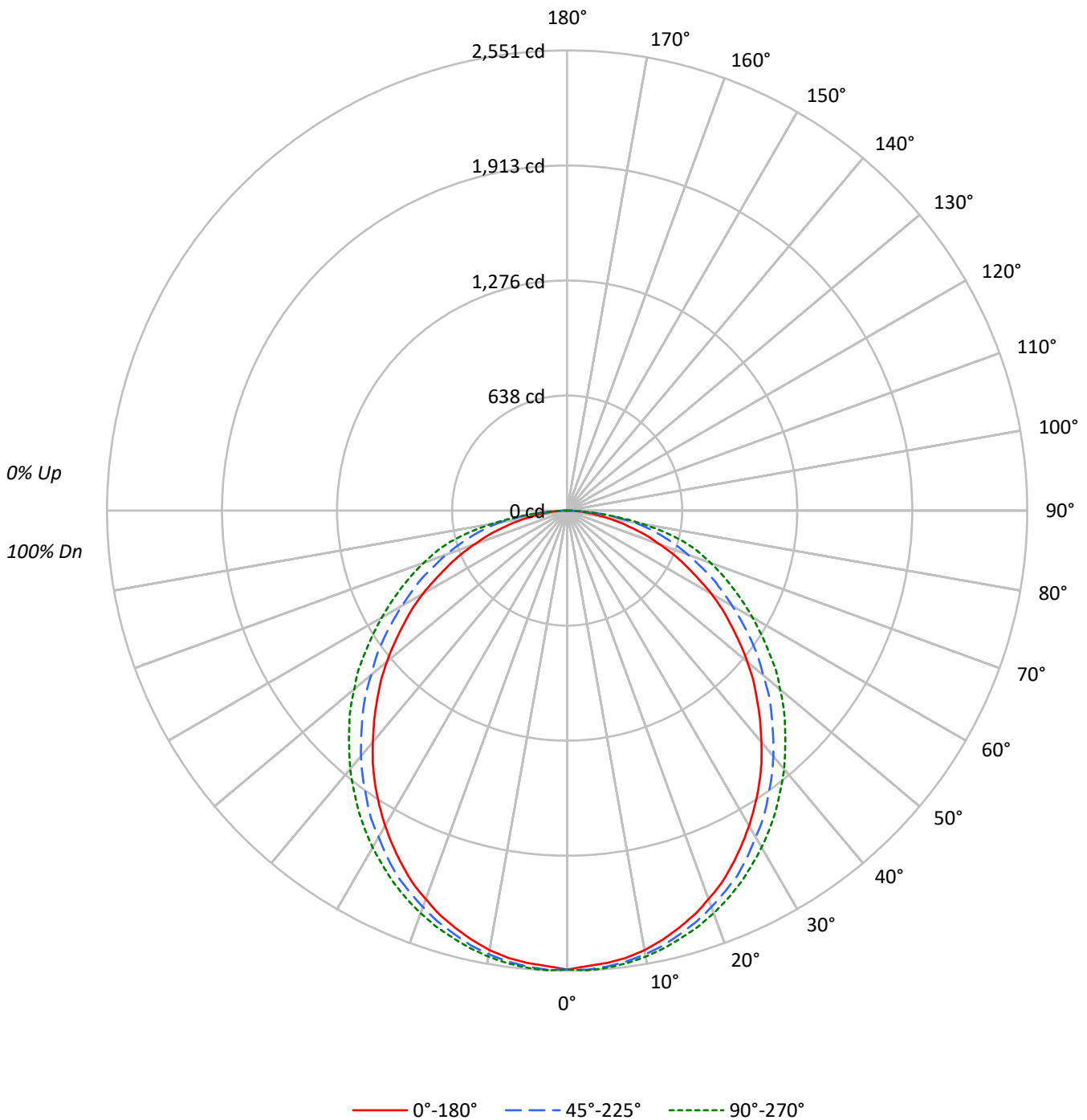
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6846	6846	6846
5°	6800	6854	6872
10°	6761	6825	6861
15°	6672	6764	6829
20°	6564	6697	6801
25°	6432	6629	6757
30°	6268	6495	6701
35°	6094	6377	6638
40°	5888	6249	6574
45°	5673	6101	6505
50°	5464	5935	6448
55°	5206	5828	6403
60°	4974	5687	6382
65°	4640	5652	6454
70°	4274	5604	6646
75°	3857	5683	6991
80°	3336	5852	6571
85°	2760	4909	4909



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.6	3.4
10°-20°	684.6	9.6
20°-30°	1024.4	14.4
30°-40°	1213.2	17.1
40°-50°	1236.4	17.4
50°-60°	1108.1	15.6
60°-70°	867.6	12.2
70°-80°	559.4	7.9
80°-90°	165.3	2.3
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°	1949.6	27.5
0°-40°	3162.8	44.5
0°-60°	5507.2	77.6
0°-90°	7099.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7099.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2544	2544	2544	2544	2544	
5°	2518	2524	2537	2541	2544	239
15°	2395	2408	2428	2448	2451	675
25°	2166	2186	2233	2262	2276	997
35°	1855	1878	1941	2001	2021	1159
45°	1491	1524	1603	1686	1709	1151
55°	1110	1146	1242	1328	1365	995
65°	729	772	888	974	1014	724
75°	371	427	547	639	672	398
85°	89	123	159	159	159	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2544.0	2544.0	2544.0	2544.0	2544.0
2.5°	2527.4	2534.0	2547.3	2550.6	2550.6
5°	2517.5	2524.1	2537.3	2540.7	2544.0
7.5°	2500.9	2504.2	2520.8	2527.4	2530.7
10°	2474.4	2481.0	2497.6	2507.5	2510.8
12.5°	2438.0	2447.9	2467.8	2481.0	2484.3
15°	2394.9	2408.2	2428.0	2447.9	2451.2
17.5°	2348.5	2361.8	2388.3	2411.5	2418.1
20°	2292.2	2308.8	2338.6	2365.1	2375.0
22.5°	2235.9	2249.2	2285.6	2318.7	2328.7
25°	2166.4	2186.2	2232.6	2262.4	2275.7
27.5°	2093.5	2116.7	2163.0	2202.8	2216.0
30°	2017.3	2040.5	2090.2	2139.9	2156.4
32.5°	1937.8	1964.3	2023.9	2073.6	2090.2
35°	1855.0	1878.2	1941.1	2000.7	2020.6
37.5°	1768.9	1788.7	1861.6	1924.5	1944.4
40°	1676.1	1702.6	1778.8	1851.7	1871.5
42.5°	1583.4	1613.2	1689.4	1768.9	1788.7
45°	1490.6	1523.7	1603.2	1686.0	1709.2
47.5°	1401.2	1427.7	1517.1	1596.6	1629.7
50°	1305.1	1331.6	1417.7	1507.2	1540.3
52.5°	1205.7	1242.2	1334.9	1421.0	1460.8
55°	1109.7	1146.1	1242.2	1328.3	1364.7
57.5°	1020.2	1050.1	1149.4	1238.9	1275.3
60°	924.2	950.7	1056.7	1152.7	1185.9
62.5°	821.5	861.2	970.6	1060.0	1099.7
65°	728.7	771.8	887.7	973.9	1013.6
67.5°	642.6	682.4	795.0	887.7	930.8
70°	543.2	596.2	712.2	804.9	844.7
72.5°	463.7	510.1	629.4	722.1	765.2
75°	371.0	427.3	546.6	639.3	672.4
77.5°	294.8	351.1	463.7	536.6	553.2
80°	215.3	271.6	377.6	414.1	424.0
82.5°	145.7	198.7	271.6	281.6	284.9
85°	89.4	122.6	159.0	159.0	159.0
87.5°	43.1	49.7	56.3	53.0	53.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)