

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: P389427

Luminaire Tested: **22CZ2-80VHE-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: P389427
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-L940-CD1-SDWPD1-U
Description: 2x2 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: 7086.5 lumens
Efficiency: N/A
Efficacy: 119.9 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

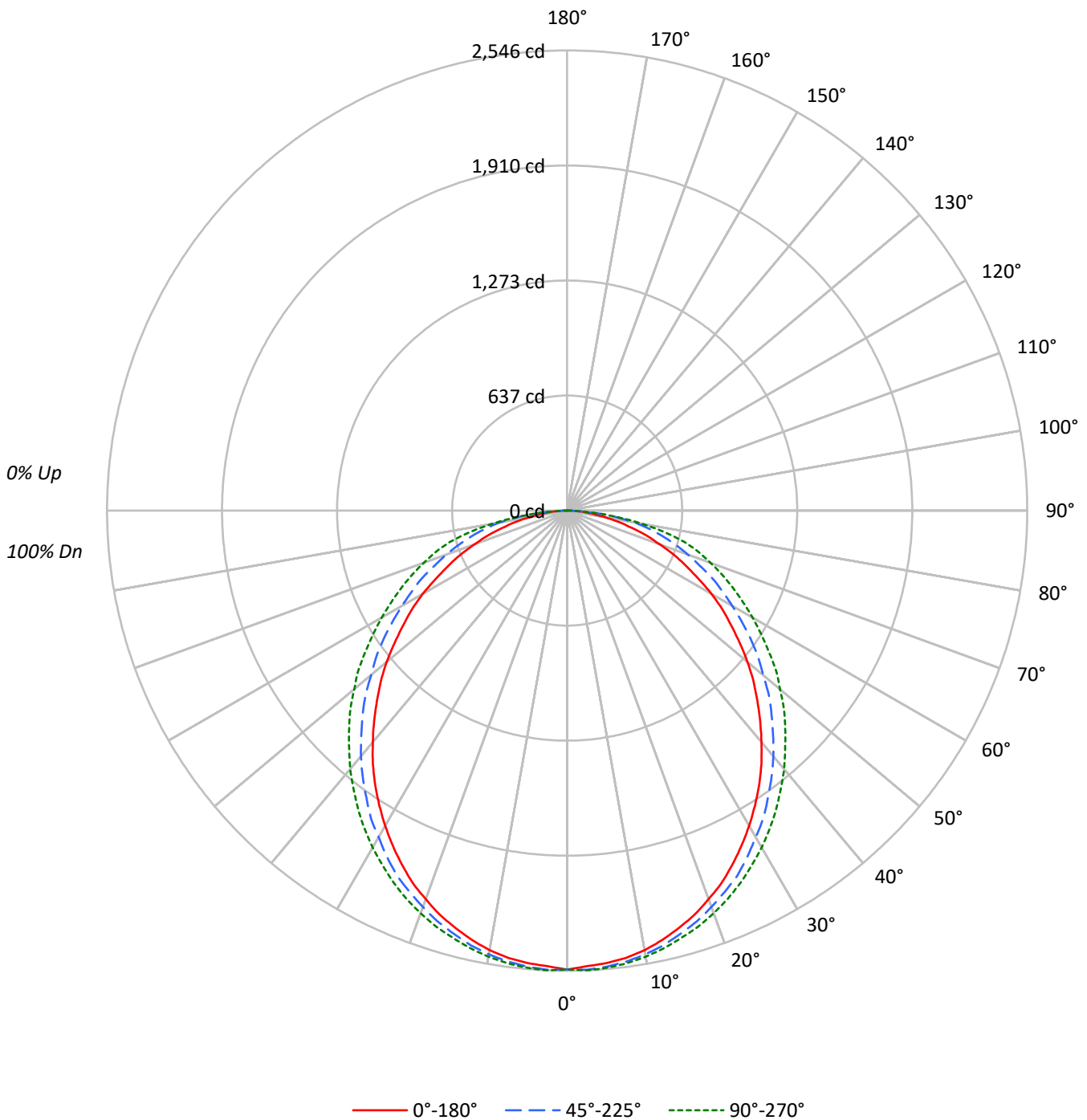
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6833	6833	6833
5°	6788	6841	6859
10°	6749	6812	6848
15°	6660	6752	6816
20°	6552	6685	6789
25°	6421	6617	6744
30°	6257	6483	6688
35°	6083	6365	6626
40°	5877	6237	6562
45°	5662	6090	6493
50°	5454	5924	6437
55°	5196	5817	6391
60°	4965	5676	6371
65°	4632	5642	6443
70°	4266	5593	6633
75°	3850	5673	6979
80°	3330	5841	6558
85°	2757	4900	4900



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.1	3.4
10°-20°	683.4	9.6
20°-30°	1022.5	14.4
30°-40°	1210.9	17.1
40°-50°	1234.1	17.4
50°-60°	1106.1	15.6
60°-70°	866.0	12.2
70°-80°	558.4	7.9
80°-90°	165.0	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°	1946.1	27.5
0°-40°	3157.0	44.5
0°-60°	5497.2	77.6
0°-90°	7086.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7086.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2539	2539	2539	2539	2539	
5°	2513	2520	2533	2536	2539	239
15°	2390	2404	2424	2443	2447	674
25°	2162	2182	2228	2258	2272	995
35°	1852	1875	1938	1997	2017	1157
45°	1488	1521	1600	1683	1706	1149
55°	1108	1144	1240	1326	1362	993
65°	727	770	886	972	1012	723
75°	370	426	546	638	671	397
85°	89	122	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°	2539.3	2539.3	2539.3	2539.3	2539.3
2.5°	2522.8	2529.4	2542.6	2545.9	2545.9
5°	2512.9	2519.5	2532.7	2536.0	2539.3
7.5°	2496.3	2499.6	2516.2	2522.8	2526.1
10°	2469.9	2476.5	2493.0	2502.9	2506.2
12.5°	2433.5	2443.4	2463.3	2476.5	2479.8
15°	2390.5	2403.8	2423.6	2443.4	2446.7
17.5°	2344.2	2357.5	2383.9	2407.1	2413.7
20°	2288.0	2304.6	2334.3	2360.8	2370.7
22.5°	2231.8	2245.0	2281.4	2314.5	2324.4
25°	2162.4	2182.2	2228.5	2258.3	2271.5
27.5°	2089.6	2112.8	2159.1	2198.8	2212.0
30°	2013.6	2036.7	2086.3	2135.9	2152.5
32.5°	1934.2	1960.7	2020.2	2069.8	2086.3
35°	1851.6	1874.7	1937.5	1997.1	2016.9
37.5°	1765.6	1785.5	1858.2	1921.0	1940.9
40°	1673.0	1699.5	1775.5	1848.3	1868.1
42.5°	1580.5	1610.2	1686.3	1765.6	1785.5
45°	1487.9	1520.9	1600.3	1683.0	1706.1
47.5°	1398.6	1425.1	1514.3	1593.7	1626.7
50°	1302.7	1329.2	1415.1	1504.4	1537.5
52.5°	1203.5	1239.9	1332.5	1418.4	1458.1
55°	1107.6	1144.0	1239.9	1325.9	1362.2
57.5°	1018.4	1048.1	1147.3	1236.6	1273.0
60°	922.5	948.9	1054.7	1150.6	1183.7
62.5°	820.0	859.7	968.8	1058.0	1097.7
65°	727.4	770.4	886.1	972.1	1011.8
67.5°	641.4	681.1	793.5	886.1	929.1
70°	542.2	595.2	710.9	803.5	843.1
72.5°	462.9	509.2	628.2	720.8	763.8
75°	370.3	426.5	545.6	638.1	671.2
77.5°	294.3	350.5	462.9	535.6	552.2
80°	214.9	271.1	376.9	413.3	423.2
82.5°	145.5	198.4	271.1	281.0	284.4
85°	89.3	122.3	158.7	158.7	158.7
87.5°	43.0	49.6	56.2	52.9	52.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)