

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: P389381

Luminaire Tested: **22CZ2-70VHE-S-UNV-L940-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: P389381
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: 22CZ2-70VHE-S-UNV-L940-CD1-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: 6298.2 lumens
Efficiency: N/A
Efficacy: 125.2 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

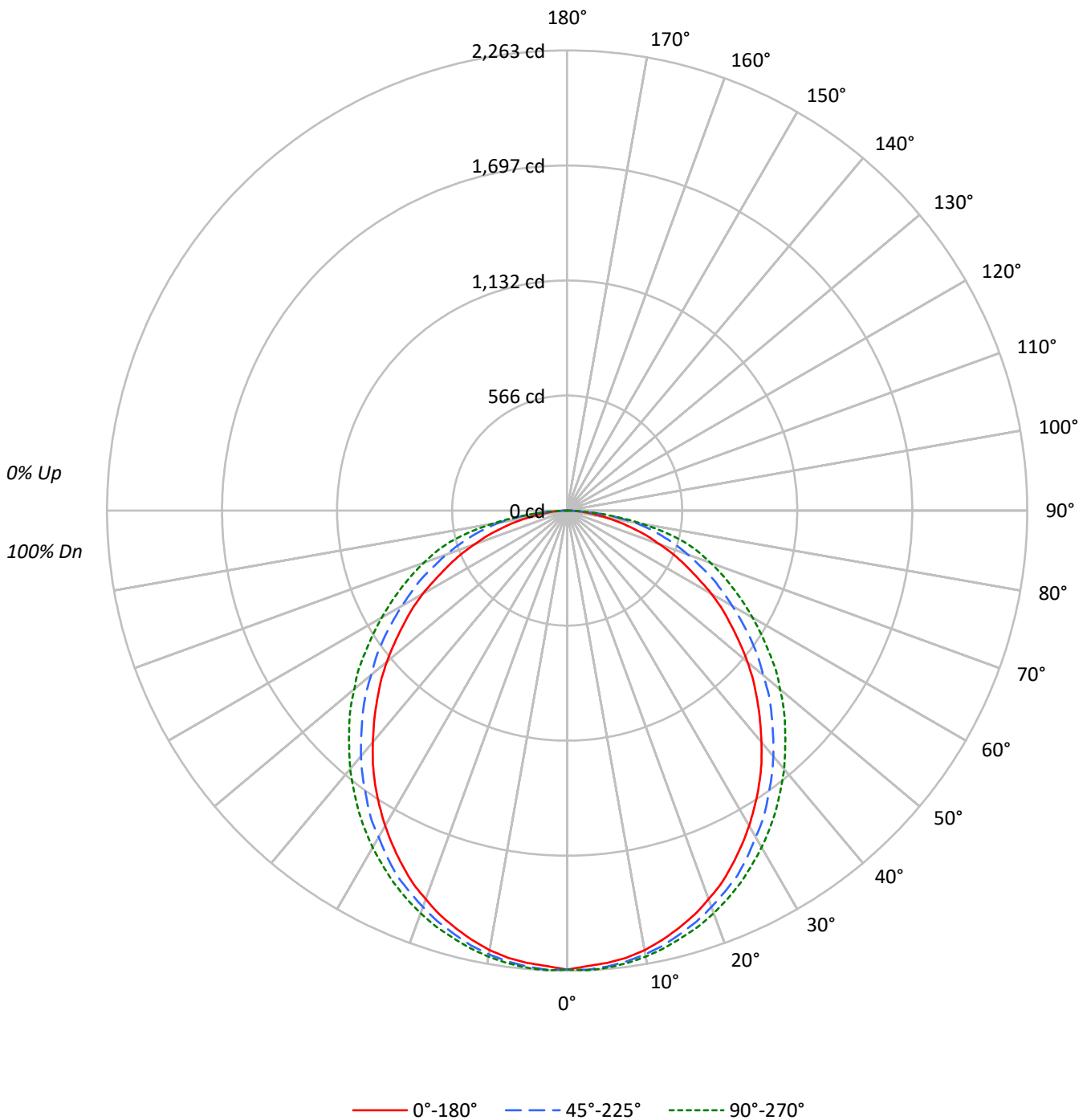
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6073	6073	6073
5°	6033	6081	6096
10°	5998	6054	6087
15°	5919	6001	6058
20°	5823	5941	6034
25°	5706	5881	5994
30°	5561	5762	5944
35°	5406	5657	5889
40°	5223	5543	5832
45°	5033	5413	5770
50°	4847	5265	5720
55°	4618	5170	5680
60°	4413	5045	5662
65°	4117	5014	5726
70°	3792	4971	5895
75°	3422	5042	6202
80°	2960	5191	5828
85°	2448	4357	4357



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.4	3.4
10°-20°	607.4	9.6
20°-30°	908.8	14.4
30°-40°	1076.2	17.1
40°-50°	1096.8	17.4
50°-60°	983.0	15.6
60°-70°	769.6	12.2
70°-80°	496.3	7.9
80°-90°	146.6	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°	1729.6	27.5
0°-40°	2805.8	44.5
0°-60°	4885.7	77.6
0°-90°	6298.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6298.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2257	2257	2257	2257	2257	
5°	2233	2239	2251	2254	2257	212
15°	2125	2136	2154	2172	2175	599
25°	1922	1940	1981	2007	2019	885
35°	1646	1666	1722	1775	1792	1028
45°	1322	1352	1422	1496	1516	1021
55°	984	1017	1102	1178	1211	883
65°	646	685	788	864	899	642
75°	329	379	485	567	596	353
85°	79	109	141	141	141	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2256.8	2256.8	2256.8	2256.8	2256.8
2.5°	2242.1	2248.0	2259.8	2262.7	2262.7
5°	2233.3	2239.2	2251.0	2253.9	2256.8
7.5°	2218.6	2221.6	2236.3	2242.1	2245.1
10°	2195.1	2201.0	2215.7	2224.5	2227.5
12.5°	2162.8	2171.6	2189.3	2201.0	2203.9
15°	2124.6	2136.4	2154.0	2171.6	2174.6
17.5°	2083.5	2095.2	2118.7	2139.3	2145.2
20°	2033.5	2048.2	2074.6	2098.2	2107.0
22.5°	1983.6	1995.3	2027.6	2057.0	2065.8
25°	1921.8	1939.5	1980.6	2007.1	2018.8
27.5°	1857.2	1877.8	1918.9	1954.2	1965.9
30°	1789.6	1810.2	1854.3	1898.3	1913.0
32.5°	1719.1	1742.6	1795.5	1839.6	1854.3
35°	1645.6	1666.2	1722.0	1774.9	1792.5
37.5°	1569.2	1586.8	1651.5	1707.3	1725.0
40°	1486.9	1510.4	1578.0	1642.7	1660.3
42.5°	1404.6	1431.1	1498.7	1569.2	1586.8
45°	1322.4	1351.8	1422.3	1495.7	1516.3
47.5°	1243.0	1266.5	1345.9	1416.4	1445.8
50°	1157.8	1181.3	1257.7	1337.1	1366.4
52.5°	1069.6	1102.0	1184.3	1260.7	1295.9
55°	984.4	1016.8	1102.0	1178.4	1210.7
57.5°	905.1	931.5	1019.7	1099.0	1131.4
60°	819.9	843.4	937.4	1022.6	1052.0
62.5°	728.8	764.0	861.0	940.4	975.6
65°	646.5	684.7	787.5	863.9	899.2
67.5°	570.1	605.4	705.3	787.5	825.7
70°	481.9	528.9	631.8	714.1	749.3
72.5°	411.4	452.5	558.3	640.6	678.8
75°	329.1	379.1	484.9	567.1	596.5
77.5°	261.5	311.5	411.4	476.1	490.7
80°	191.0	241.0	335.0	367.3	376.1
82.5°	129.3	176.3	241.0	249.8	252.7
85°	79.3	108.7	141.1	141.1	141.1
87.5°	38.2	44.1	50.0	47.0	47.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)