

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: P389331

Luminaire Tested: **22CZ2-60VHE-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: P389331
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: 22CZ2-60VHE-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: 5350.8 lumens
Efficiency: N/A
Efficacy: 121.3 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

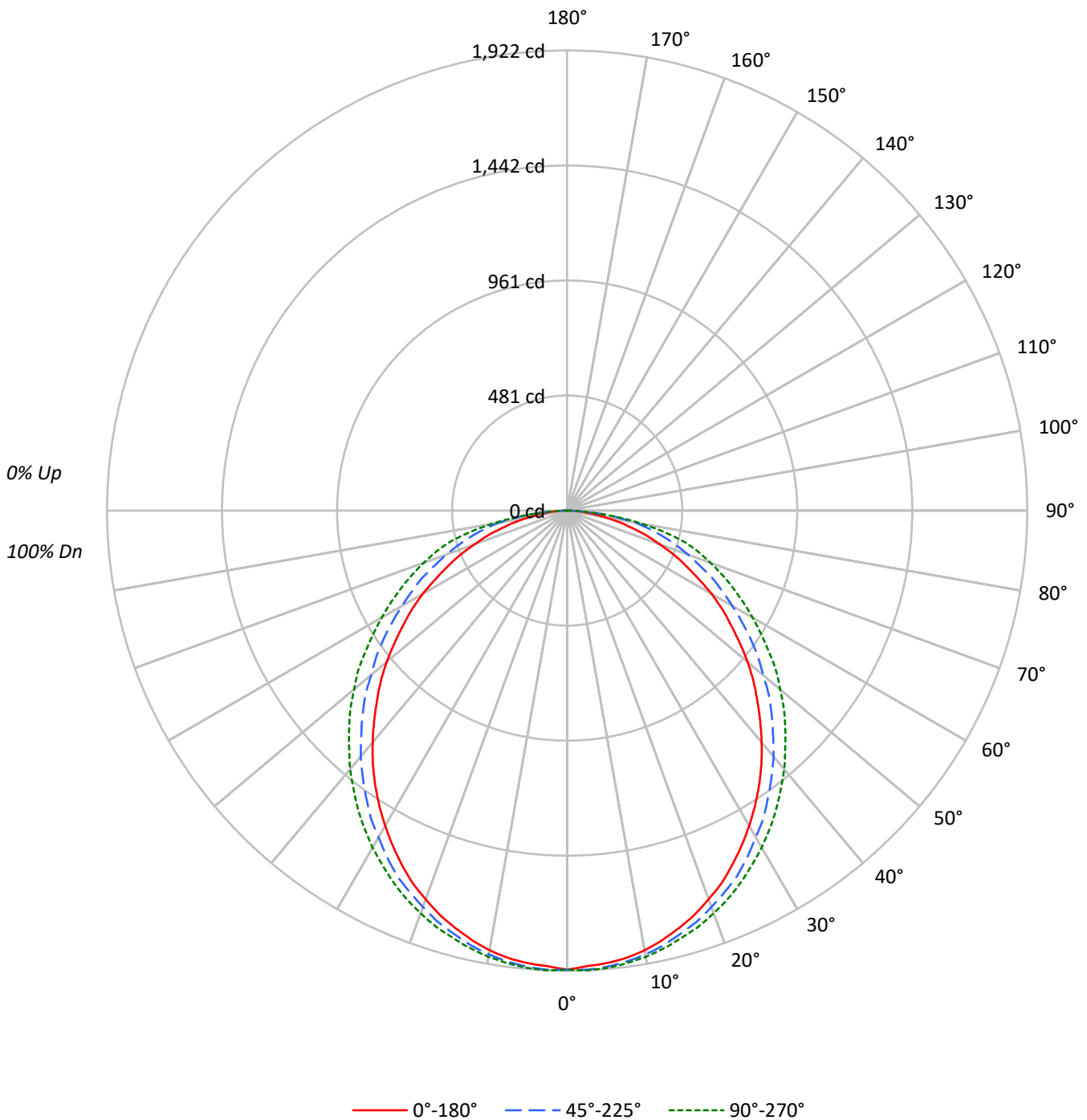
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	5160	5160	5160
5°	5125	5166	5179
10°	5096	5144	5171
15°	5029	5098	5147
20°	4947	5048	5126
25°	4848	4996	5092
30°	4724	4895	5050
35°	4593	4806	5003
40°	4438	4710	4955
45°	4276	4598	4902
50°	4118	4473	4860
55°	3924	4392	4826
60°	3749	4286	4810
65°	3497	4260	4864
70°	3221	4223	5009
75°	2907	4283	5269
80°	2515	4410	4953
85°	2081	3699	3699



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.3	3.4
10°-20°	516.0	9.6
20°-30°	772.1	14.4
30°-40°	914.3	17.1
40°-50°	931.8	17.4
50°-60°	835.2	15.6
60°-70°	653.9	12.2
70°-80°	421.6	7.9
80°-90°	124.5	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°	1469.4	27.5
0°-40°	2383.7	44.5
0°-60°	4150.7	77.6
0°-90°	5350.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5350.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1917	1917	1917	1917	1917	
5°	1897	1902	1912	1915	1917	180
15°	1805	1815	1830	1845	1848	509
25°	1633	1648	1683	1705	1715	752
35°	1398	1416	1463	1508	1523	874
45°	1124	1148	1208	1271	1288	868
55°	836	864	936	1001	1029	750
65°	549	582	669	734	764	546
75°	280	322	412	482	507	300
85°	67	92	120	120	120	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1917.4	1917.4	1917.4	1917.4	1917.4
2.5°	1904.9	1909.9	1919.9	1922.4	1922.4
5°	1897.4	1902.4	1912.4	1914.9	1917.4
7.5°	1884.9	1887.4	1899.9	1904.9	1907.4
10°	1864.9	1869.9	1882.4	1889.9	1892.4
12.5°	1837.5	1845.0	1859.9	1869.9	1872.4
15°	1805.0	1815.0	1830.0	1845.0	1847.5
17.5°	1770.1	1780.0	1800.0	1817.5	1822.5
20°	1727.6	1740.1	1762.6	1782.5	1790.0
22.5°	1685.2	1695.2	1722.6	1747.6	1755.1
25°	1632.8	1647.7	1682.7	1705.2	1715.1
27.5°	1577.8	1595.3	1630.3	1660.2	1670.2
30°	1520.4	1537.9	1575.3	1612.8	1625.3
32.5°	1460.5	1480.5	1525.4	1562.8	1575.3
35°	1398.1	1415.5	1463.0	1507.9	1522.9
37.5°	1333.2	1348.1	1403.1	1450.5	1465.5
40°	1263.3	1283.2	1340.7	1395.6	1410.6
42.5°	1193.4	1215.8	1273.2	1333.2	1348.1
45°	1123.5	1148.4	1208.3	1270.7	1288.2
47.5°	1056.0	1076.0	1143.4	1203.3	1228.3
50°	983.6	1003.6	1068.5	1135.9	1160.9
52.5°	908.7	936.2	1006.1	1071.0	1101.0
55°	836.3	863.8	936.2	1001.1	1028.6
57.5°	768.9	791.4	866.3	933.7	961.2
60°	696.5	716.5	796.4	868.8	893.8
62.5°	619.1	649.1	731.5	798.9	828.9
65°	549.2	581.7	669.1	734.0	763.9
67.5°	484.3	514.3	599.2	669.1	701.5
70°	409.4	449.4	536.8	606.7	636.6
72.5°	349.5	384.5	474.3	544.3	576.7
75°	279.6	322.1	411.9	481.8	506.8
77.5°	222.2	264.6	349.5	404.4	416.9
80°	162.3	204.7	284.6	312.1	319.6
82.5°	109.8	149.8	204.7	212.2	214.7
85°	67.4	92.4	119.8	119.8	119.8
87.5°	32.5	37.4	42.4	39.9	39.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)