

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: P389354

Luminaire Tested: **22CZ2-65VHE-S-UNV-L935-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: P389354  
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: 22CZ2-65VHE-S-UNV-L935-CD1-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: 5826.9 lumens  
Efficiency: N/A  
Efficacy: 121.6 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

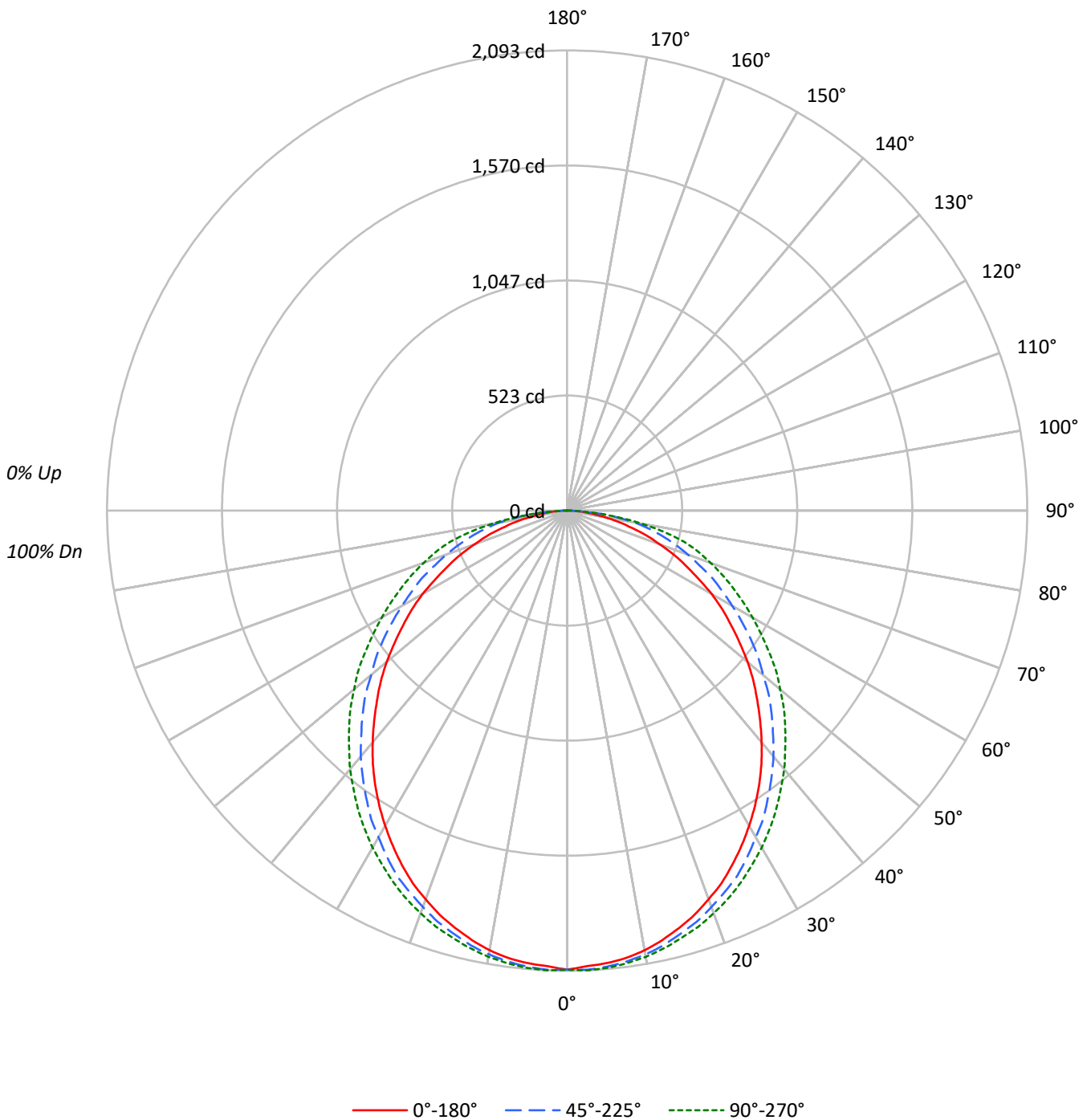
Input Watts (W): 47.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5619	5619	5619
5°	5581	5625	5640
10°	5549	5601	5631
15°	5476	5552	5605
20°	5387	5497	5582
25°	5279	5441	5546
30°	5145	5331	5500
35°	5002	5234	5448
40°	4833	5128	5396
45°	4656	5007	5339
50°	4484	4871	5292
55°	4273	4783	5255
60°	4082	4668	5238
65°	3808	4639	5297
70°	3508	4599	5455
75°	3166	4664	5738
80°	2738	4802	5393
85°	2266	4029	4029



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.5	3.4
10°-20°	561.9	9.6
20°-30°	840.8	14.4
30°-40°	995.7	17.1
40°-50°	1014.7	17.4
50°-60°	909.5	15.6
60°-70°	712.1	12.2
70°-80°	459.2	7.9
80°-90°	135.6	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°	1600.1	27.5
0°-40°	2595.8	44.5
0°-60°	4520.1	77.6
0°-90°	5826.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5826.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2088	2088	2088	2088	2088	
5°	2066	2072	2082	2085	2088	196
15°	1966	1976	1993	2009	2012	554
25°	1778	1794	1832	1857	1868	818
35°	1522	1542	1593	1642	1658	952
45°	1223	1251	1316	1384	1403	945
55°	911	941	1020	1090	1120	817
65°	598	634	729	799	832	594
75°	304	351	449	525	552	326
85°	73	101	130	130	130	86
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2088.0	2088.0	2088.0	2088.0	2088.0
2.5°	2074.4	2079.8	2090.7	2093.4	2093.4
5°	2066.2	2071.6	2082.5	2085.2	2088.0
7.5°	2052.6	2055.3	2068.9	2074.4	2077.1
10°	2030.9	2036.3	2049.9	2058.1	2060.8
12.5°	2001.0	2009.1	2025.4	2036.3	2039.0
15°	1965.6	1976.5	1992.8	2009.1	2011.8
17.5°	1927.6	1938.4	1960.2	1979.2	1984.6
20°	1881.3	1894.9	1919.4	1941.2	1949.3
22.5°	1835.1	1846.0	1875.9	1903.1	1911.2
25°	1778.0	1794.3	1832.4	1856.9	1867.7
27.5°	1718.2	1737.2	1775.3	1807.9	1818.8
30°	1655.7	1674.7	1715.5	1756.3	1769.9
32.5°	1590.4	1612.2	1661.1	1701.9	1715.5
35°	1522.5	1541.5	1593.2	1642.1	1658.4
37.5°	1451.8	1468.1	1527.9	1579.6	1595.9
40°	1375.7	1397.4	1459.9	1519.8	1536.1
42.5°	1299.5	1324.0	1386.5	1451.8	1468.1
45°	1223.4	1250.6	1315.8	1383.8	1402.8
47.5°	1150.0	1171.8	1245.2	1310.4	1337.6
50°	1071.2	1092.9	1163.6	1237.0	1264.2
52.5°	989.6	1019.5	1095.6	1166.3	1198.9
55°	910.8	940.7	1019.5	1090.2	1120.1
57.5°	837.4	861.8	943.4	1016.8	1046.7
60°	758.5	780.3	867.3	946.1	973.3
62.5°	674.2	706.9	796.6	870.0	902.6
65°	598.1	633.5	728.6	799.3	831.9
67.5°	527.4	560.1	652.5	728.6	764.0
70°	445.9	489.4	584.5	660.6	693.3
72.5°	380.6	418.7	516.6	592.7	628.0
75°	304.5	350.7	448.6	524.7	551.9
77.5°	242.0	288.2	380.6	440.4	454.0
80°	176.7	222.9	309.9	339.8	348.0
82.5°	119.6	163.1	222.9	231.1	233.8
85°	73.4	100.6	130.5	130.5	130.5
87.5°	35.3	40.8	46.2	43.5	43.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)