

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: P389357

Luminaire Tested: **22CZ2-65VHE-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: P389357  
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-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**

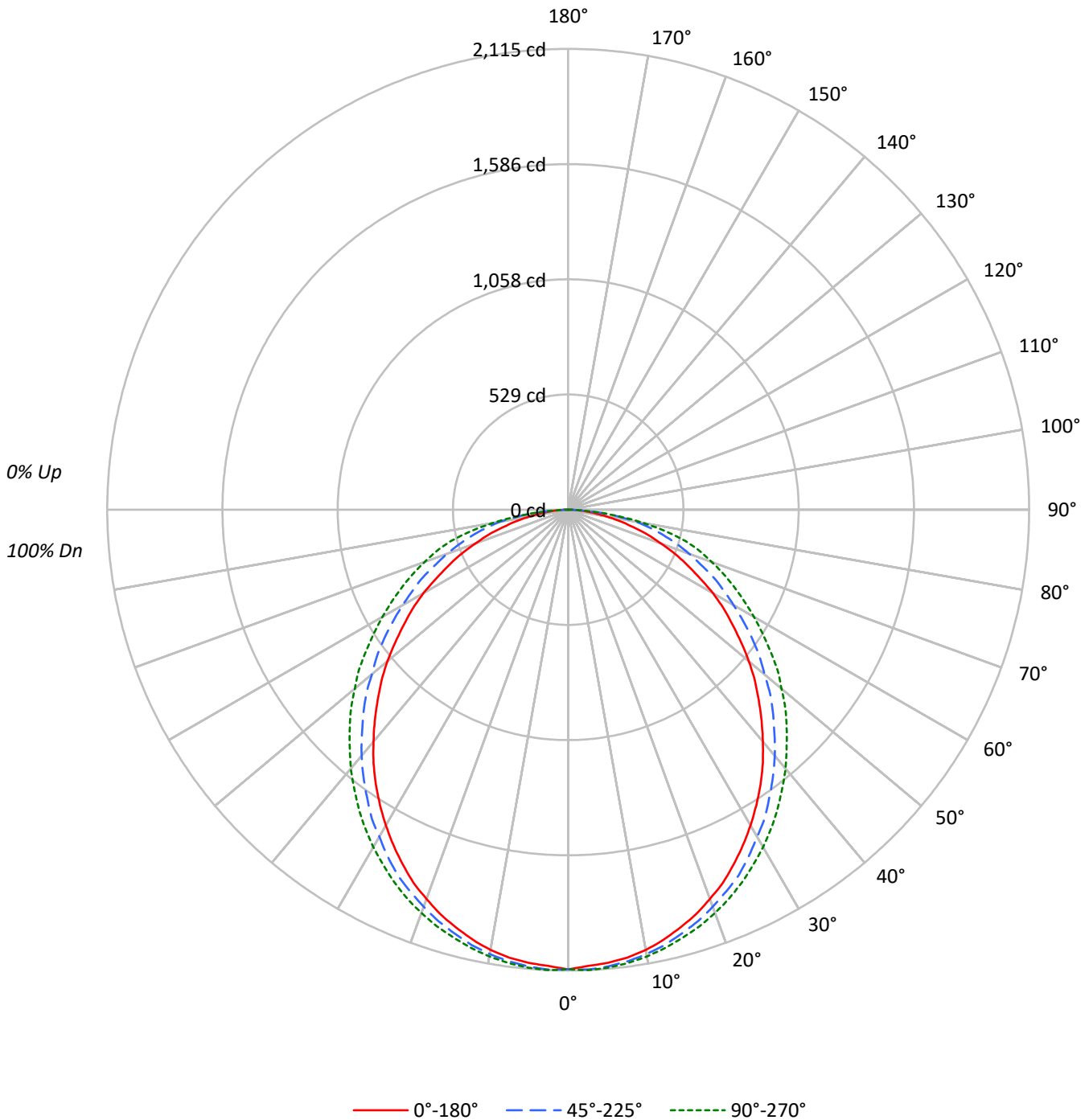
Lumens per Lamp: N/A  
Luminaire Lumens: 5887.1 lumens  
Efficiency: N/A  
Efficacy: 122.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 47.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	5677	5677	5677
5°	5639	5683	5698
10°	5607	5659	5689
15°	5533	5609	5663
20°	5443	5553	5640
25°	5334	5497	5603
30°	5198	5386	5556
35°	5053	5288	5504
40°	4882	5181	5452
45°	4704	5059	5394
50°	4531	4922	5347
55°	4317	4832	5309
60°	4125	4716	5292
65°	3848	4687	5352
70°	3544	4647	5511
75°	3198	4712	5797
80°	2766	4852	5449
85°	2291	4069	4069



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	199.5	3.4
10°-20°	567.7	9.6
20°-30°	849.5	14.4
30°-40°	1006.0	17.1
40°-50°	1025.2	17.4
50°-60°	918.9	15.6
60°-70°	719.4	12.2
70°-80°	463.9	7.9
80°-90°	137.0	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°	1616.7	27.5
0°-40°	2622.7	44.5
0°-60°	4566.8	77.6
0°-90°	5887.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5887.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2110	2110	2110	2110	2110	
5°	2088	2093	2104	2107	2110	198
15°	1986	1997	2013	2030	2033	560
25°	1796	1813	1851	1876	1887	827
35°	1538	1557	1610	1659	1676	961
45°	1236	1264	1329	1398	1417	955
55°	920	950	1030	1102	1132	825
65°	604	640	736	808	840	600
75°	308	354	453	530	558	330
85°	74	102	132	132	132	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2109.5	2109.5	2109.5	2109.5	2109.5
2.5°	2095.8	2101.3	2112.3	2115.0	2115.0
5°	2087.6	2093.1	2104.0	2106.8	2109.5
7.5°	2073.8	2076.6	2090.3	2095.8	2098.5
10°	2051.8	2057.3	2071.1	2079.3	2082.1
12.5°	2021.6	2029.9	2046.4	2057.3	2060.1
15°	1985.9	1996.9	2013.4	2029.9	2032.6
17.5°	1947.5	1958.5	1980.4	1999.7	2005.2
20°	1900.8	1914.5	1939.2	1961.2	1969.4
22.5°	1854.1	1865.1	1895.3	1922.8	1931.0
25°	1796.4	1812.9	1851.3	1876.1	1887.0
27.5°	1736.0	1755.2	1793.7	1826.6	1837.6
30°	1672.8	1692.0	1733.2	1774.4	1788.2
32.5°	1606.9	1628.8	1678.3	1719.5	1733.2
35°	1538.2	1557.4	1609.6	1659.1	1675.5
37.5°	1466.8	1483.3	1543.7	1595.9	1612.4
40°	1389.9	1411.8	1475.0	1535.5	1551.9
42.5°	1313.0	1337.7	1400.9	1466.8	1483.3
45°	1236.1	1263.5	1329.4	1398.1	1417.3
47.5°	1161.9	1183.9	1258.0	1324.0	1351.4
50°	1082.2	1104.2	1175.6	1249.8	1277.3
52.5°	999.8	1030.0	1107.0	1178.4	1211.3
55°	920.2	950.4	1030.0	1101.5	1131.7
57.5°	846.0	870.7	953.1	1027.3	1057.5
60°	766.4	788.3	876.2	955.9	983.3
62.5°	681.2	714.2	804.8	879.0	911.9
65°	604.3	640.0	736.1	807.6	840.5
67.5°	532.9	565.8	659.2	736.1	771.8
70°	450.5	494.4	590.6	667.5	700.4
72.5°	384.6	423.0	521.9	598.8	634.5
75°	307.6	354.3	453.2	530.1	557.6
77.5°	244.5	291.2	384.6	445.0	458.7
80°	178.5	225.2	313.1	343.3	351.6
82.5°	120.9	164.8	225.2	233.5	236.2
85°	74.2	101.6	131.8	131.8	131.8
87.5°	35.7	41.2	46.7	43.9	43.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)