

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: P388414

Luminaire Tested: **22CZ2-65VHE-UNV-L930-CD1-SWPD1-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: P388414  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-65VHE-UNV-L930-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

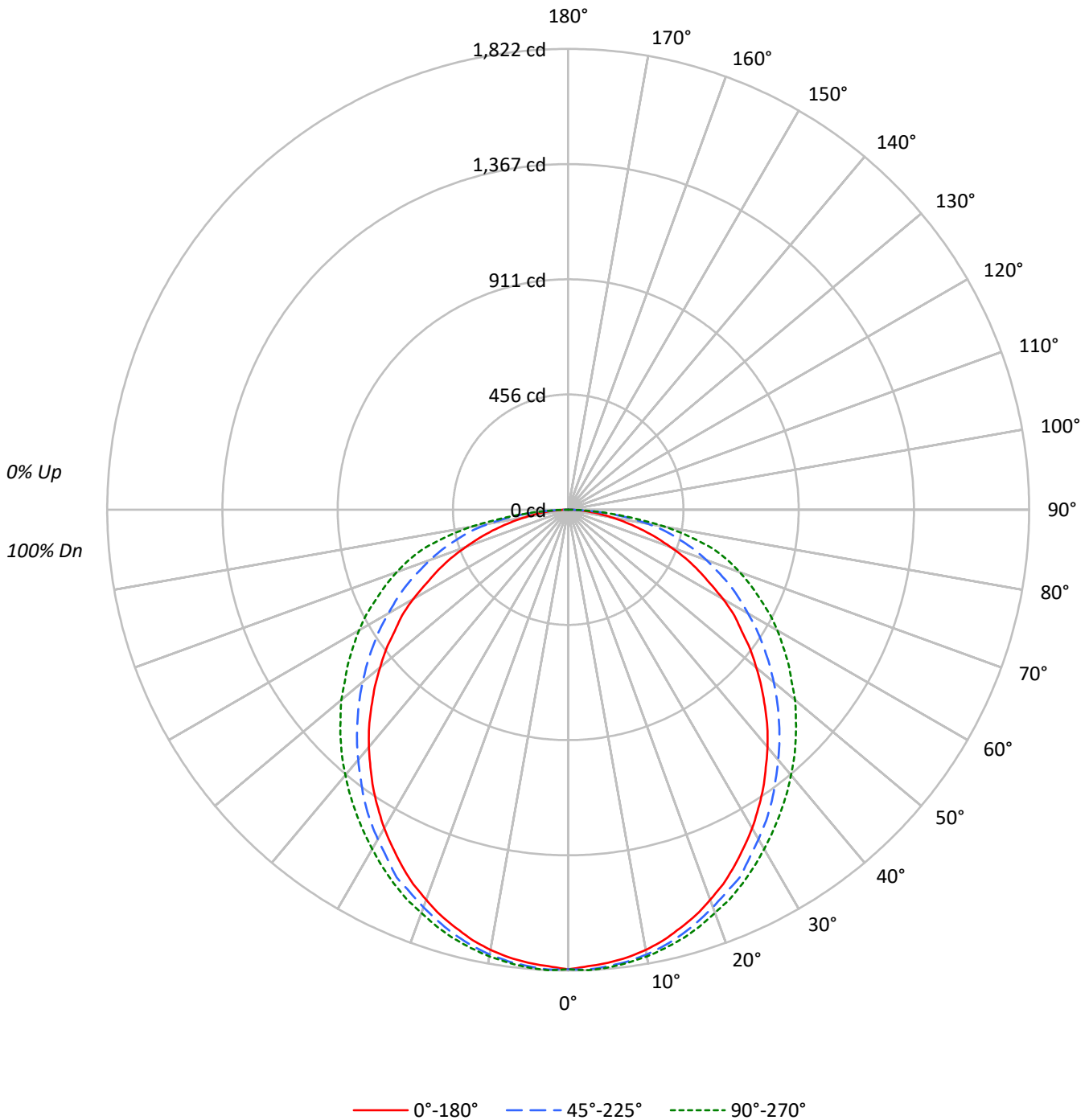
Lumens per Lamp: N/A  
Luminaire Lumens: 5344.5 lumens  
Efficiency: N/A  
Efficacy: 111.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 47.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	98	94	105	101	96	93	96	93	90		92	90	87		89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61		70	65	60		68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52		63	56	51		60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44		56	49	44		54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34		46	39	34		45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31		42	35	30		41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28		39	32	27		38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4890	4890	4890
5°	4859	4895	4909
10°	4829	4879	4901
15°	4769	4843	4887
20°	4699	4790	4858
25°	4615	4763	4841
30°	4519	4674	4813
35°	4415	4613	4803
40°	4305	4536	4813
45°	4184	4484	4844
50°	4063	4437	4899
55°	3924	4417	4985
60°	3807	4416	5138
65°	3617	4488	5325
70°	3373	4573	5670
75°	3090	4731	6125
80°	2690	4931	6031
85°	2356	4384	4792



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.9	3.2
10°-20°	489.5	9.2
20°-30°	734.9	13.7
30°-40°	878.1	16.4
40°-50°	913.1	17.1
50°-60°	846.3	15.8
60°-70°	694.2	13.0
70°-80°	469.3	8.8
80°-90°	147.5	2.8
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°	1396.2	26.1
0°-40°	2274.3	42.6
0°-60°	4033.6	75.5
0°-90°	5344.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5344.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1817	1817	1817	1817	1817	
5°	1799	1801	1812	1815	1817	171
15°	1712	1720	1738	1749	1754	483
25°	1554	1567	1604	1623	1630	716
35°	1344	1362	1404	1446	1462	840
45°	1099	1120	1178	1247	1273	849
55°	836	863	942	1026	1062	752
65°	568	600	705	797	836	561
75°	297	347	455	547	589	315
85°	76	105	142	158	155	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1817.2	1817.2	1817.2	1817.2	1817.2
2.5°	1806.7	1812.0	1819.9	1822.5	1822.5
5°	1798.8	1801.4	1812.0	1814.6	1817.2
7.5°	1785.7	1790.9	1801.4	1804.1	1806.7
10°	1767.3	1772.5	1785.7	1790.9	1793.6
12.5°	1743.6	1748.9	1764.6	1772.5	1775.2
15°	1712.0	1719.9	1738.3	1748.9	1754.1
17.5°	1680.5	1688.4	1706.8	1722.6	1727.8
20°	1641.0	1659.4	1672.6	1693.6	1696.3
22.5°	1601.6	1612.1	1635.8	1656.8	1667.3
25°	1554.2	1567.4	1604.2	1622.6	1630.5
27.5°	1504.3	1522.7	1551.6	1580.5	1591.1
30°	1454.3	1467.5	1504.3	1538.5	1549.0
32.5°	1399.1	1417.5	1456.9	1491.1	1506.9
35°	1343.9	1362.3	1404.3	1446.4	1462.2
37.5°	1283.4	1304.4	1346.5	1396.5	1417.5
40°	1225.5	1241.3	1291.3	1351.7	1370.2
42.5°	1165.0	1183.4	1236.0	1301.8	1322.8
45°	1099.3	1120.3	1178.2	1246.6	1272.8
47.5°	1036.2	1057.2	1120.3	1188.7	1220.3
50°	970.4	996.7	1059.8	1138.7	1170.3
52.5°	907.3	931.0	1002.0	1083.5	1112.4
55°	836.3	862.6	941.5	1025.6	1062.5
57.5°	778.4	796.8	883.6	970.4	1007.2
60°	707.4	731.1	820.5	912.6	954.6
62.5°	631.2	670.6	762.7	857.3	899.4
65°	568.0	599.6	704.8	796.8	836.3
67.5°	502.3	536.5	639.1	736.4	781.1
70°	428.7	473.4	581.2	678.5	720.6
72.5°	362.9	410.3	520.7	615.4	660.1
75°	297.2	347.1	455.0	547.0	589.1
77.5°	234.1	289.3	394.5	465.5	491.8
80°	173.6	226.2	318.2	368.2	389.2
82.5°	121.0	165.7	234.1	260.4	265.6
85°	76.3	105.2	142.0	157.8	155.2
87.5°	34.2	42.1	52.6	57.9	55.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)