

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: P390741

Luminaire Tested: **22CZ2-85VHE-HRP-UNV-L930-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: P390741  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-85VHE-HRP-UNV-L930-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

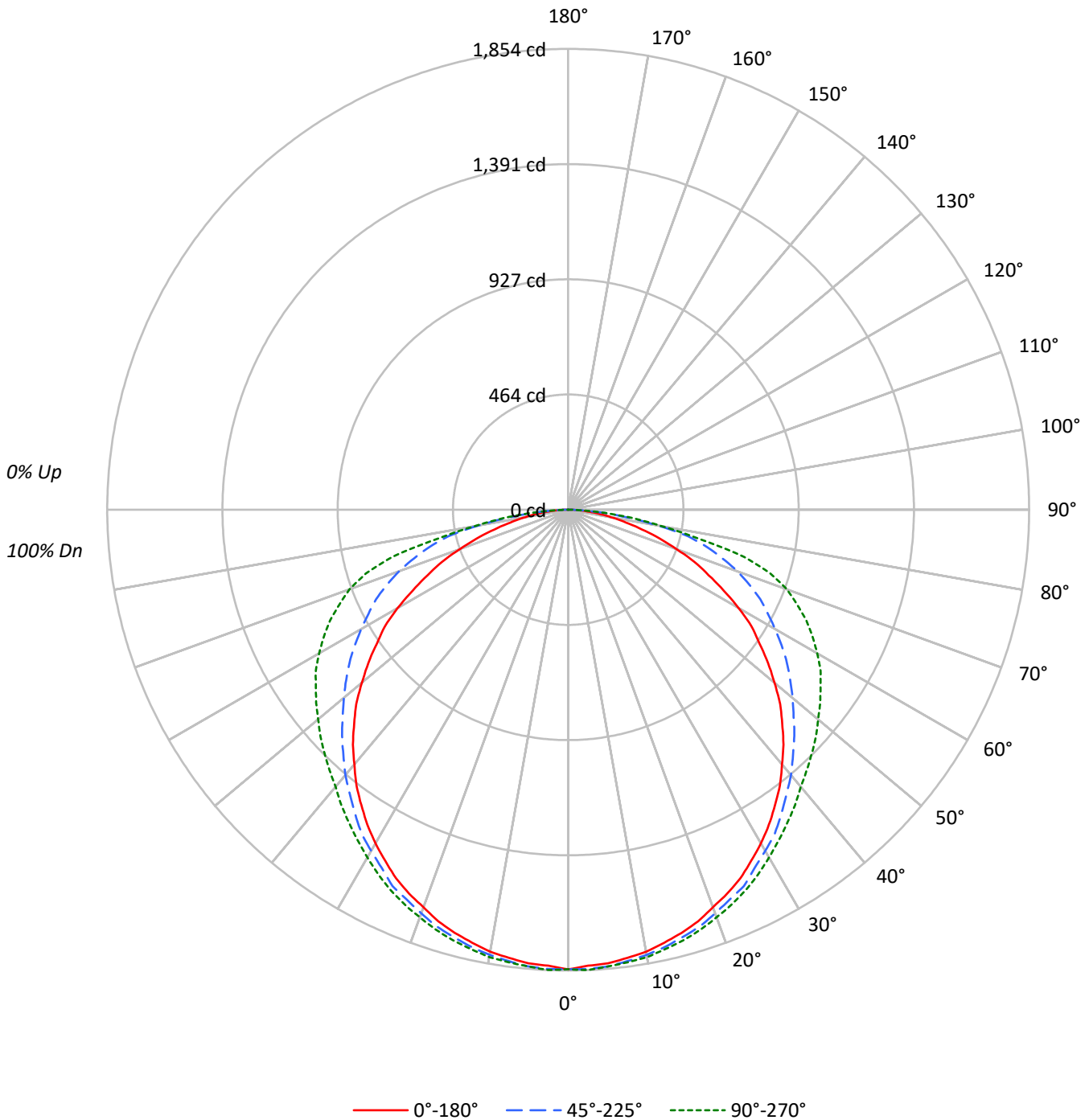
Lumens per Lamp: N/A  
Luminaire Lumens: 5886.8 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



TEST NUMBER: P390741

CATALOG NUMBER: 22CZ2-85VHE-HRP-UNV-L930-CD1-SDWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P390741

CATALOG NUMBER: 22CZ2-85VHE-HRP-UNV-L930-CD1-SDWPD1-U

**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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	4976	4976	4976
5°	4948	4983	4983
10°	4934	4970	4994
15°	4910	4959	4995
20°	4874	4948	4998
25°	4860	4963	5015
30°	4817	4925	5019
35°	4766	4908	5050
40°	4701	4898	5112
45°	4631	4895	5274
50°	4532	4931	5493
55°	4409	5039	5811
60°	4265	5174	6223
65°	3971	5432	6728
70°	3646	5690	7360
75°	3197	5989	7610
80°	2752	5704	5972
85°	2405	4143	4545



TEST NUMBER: P390741

CATALOG NUMBER: 22CZ2-85VHE-HRP-UNV-L930-CD1-SDWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.9	3.0
10°-20°	502.2	8.5
20°-30°	766.2	13.0
30°-40°	935.6	15.9
40°-50°	1000.4	17.0
50°-60°	965.6	16.4
60°-70°	831.2	14.1
70°-80°	562.4	9.6
80°-90°	148.4	2.5
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°	1443.4	24.5
0°-40°	2379.0	40.4
0°-60°	4344.9	73.8
0°-90°	5886.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5886.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1849	1849	1849	1849	1849	
5°	1832	1836	1845	1845	1845	174
15°	1762	1767	1780	1788	1793	497
25°	1637	1646	1672	1680	1689	753
35°	1451	1464	1494	1524	1537	908
45°	1217	1238	1286	1351	1386	939
55°	940	970	1074	1182	1238	842
65°	624	684	853	987	1057	620
75°	308	407	576	693	732	330
85°	78	108	134	139	147	88
90°	0	0	0	0	0	



TEST NUMBER: P390741

CATALOG NUMBER: 22CZ2-85VHE-HRP-UNV-L930-CD1-SDWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1849.1	1849.1	1849.1	1849.1	1849.1
2.5°	1836.2	1840.5	1849.1	1849.1	1853.5
5°	1831.8	1836.2	1844.8	1844.8	1844.8
7.5°	1818.8	1823.2	1831.8	1836.2	1836.2
10°	1805.8	1810.2	1818.8	1823.2	1827.5
12.5°	1784.2	1788.5	1801.5	1810.2	1810.2
15°	1762.5	1766.9	1779.9	1788.5	1792.8
17.5°	1736.6	1745.2	1758.2	1766.9	1771.2
20°	1701.9	1710.6	1727.9	1740.9	1745.2
22.5°	1671.6	1680.3	1697.6	1710.6	1719.2
25°	1636.9	1645.6	1671.6	1680.3	1688.9
27.5°	1593.6	1602.3	1624.0	1641.3	1654.3
30°	1550.3	1559.0	1585.0	1606.6	1615.3
32.5°	1502.7	1515.7	1546.0	1563.3	1576.3
35°	1450.7	1463.7	1494.0	1524.4	1537.3
37.5°	1398.8	1411.8	1442.1	1481.0	1498.4
40°	1338.1	1355.5	1394.4	1446.4	1455.1
42.5°	1281.8	1303.5	1338.1	1398.8	1420.4
45°	1216.9	1238.5	1286.2	1351.1	1385.8
47.5°	1156.3	1177.9	1229.9	1307.8	1351.1
50°	1082.6	1113.0	1177.9	1268.9	1312.2
52.5°	1013.3	1039.3	1125.9	1225.5	1277.5
55°	939.7	970.0	1074.0	1182.2	1238.5
57.5°	874.8	900.8	1017.7	1138.9	1203.9
60°	792.5	827.1	961.4	1091.3	1156.3
62.5°	705.9	757.8	905.1	1039.3	1108.6
65°	623.6	684.2	853.1	987.4	1056.7
67.5°	550.0	614.9	788.2	931.1	996.0
70°	463.4	545.6	723.2	861.8	935.4
72.5°	385.4	476.4	649.6	788.2	853.1
75°	307.5	407.1	576.0	692.9	731.9
77.5°	238.2	333.5	493.7	528.3	532.7
80°	177.6	264.2	368.1	372.4	385.4
82.5°	121.3	186.2	238.2	259.8	264.2
85°	77.9	108.3	134.2	138.6	147.2
87.5°	34.6	39.0	47.6	43.3	43.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)