

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: P390743

Luminaire Tested: **22CZ2-85VHE-HRP-UNV-L930-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: P390743  
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-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: 6033.5 lumens  
Efficiency: N/A  
Efficacy: 94.9 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

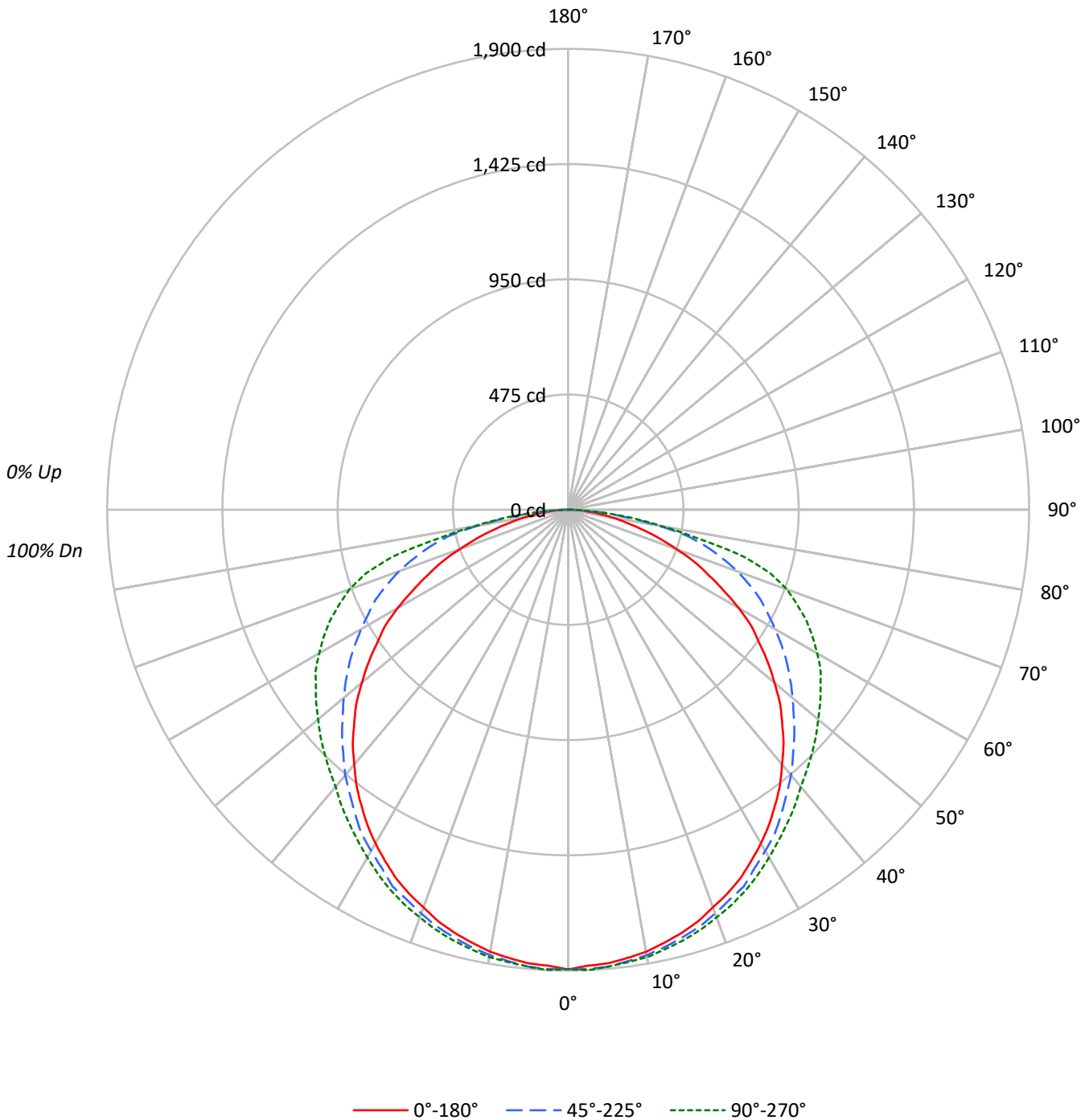
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

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

	0°	45°	90°
0°	5100	5100	5100
5°	5072	5108	5108
10°	5057	5094	5118
15°	5033	5082	5119
20°	4995	5072	5122
25°	4981	5087	5140
30°	4937	5048	5144
35°	4885	5030	5176
40°	4818	5021	5239
45°	4746	5017	5405
50°	4645	5054	5630
55°	4518	5164	5955
60°	4371	5303	6378
65°	4069	5568	6896
70°	3736	5832	7543
75°	3276	6137	7799
80°	2820	5847	6121
85°	2467	4248	4659



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.3	3.0
10°-20°	514.7	8.5
20°-30°	785.3	13.0
30°-40°	958.9	15.9
40°-50°	1025.3	17.0
50°-60°	989.6	16.4
60°-70°	851.9	14.1
70°-80°	576.4	9.6
80°-90°	152.1	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°	1479.3	24.5
0°-40°	2438.2	40.4
0°-60°	4453.1	73.8
0°-90°	6033.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6033.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1895	1895	1895	1895	1895	
5°	1878	1882	1891	1891	1891	178
15°	1806	1811	1824	1833	1838	510
25°	1678	1687	1713	1722	1731	772
35°	1487	1500	1531	1562	1576	930
45°	1247	1269	1318	1385	1420	963
55°	963	994	1101	1212	1269	863
65°	639	701	874	1012	1083	636
75°	315	417	590	710	750	338
85°	80	111	138	142	151	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1895.2	1895.2	1895.2	1895.2	1895.2
2.5°	1881.9	1886.4	1895.2	1895.2	1899.7
5°	1877.5	1881.9	1890.8	1890.8	1890.8
7.5°	1864.2	1868.6	1877.5	1881.9	1881.9
10°	1850.8	1855.3	1864.2	1868.6	1873.0
12.5°	1828.7	1833.1	1846.4	1855.3	1855.3
15°	1806.5	1810.9	1824.2	1833.1	1837.5
17.5°	1779.8	1788.7	1802.0	1810.9	1815.3
20°	1744.3	1753.2	1771.0	1784.3	1788.7
22.5°	1713.3	1722.1	1739.9	1753.2	1762.1
25°	1677.7	1686.6	1713.3	1722.1	1731.0
27.5°	1633.4	1642.2	1664.4	1682.2	1695.5
30°	1589.0	1597.8	1624.5	1646.7	1655.5
32.5°	1540.1	1553.5	1584.5	1602.3	1615.6
35°	1486.9	1500.2	1531.3	1562.3	1575.7
37.5°	1433.6	1446.9	1478.0	1518.0	1535.7
40°	1371.5	1389.2	1429.2	1482.4	1491.3
42.5°	1313.8	1336.0	1371.5	1433.6	1455.8
45°	1247.2	1269.4	1318.2	1384.8	1420.3
47.5°	1185.1	1207.3	1260.5	1340.4	1384.8
50°	1109.6	1140.7	1207.3	1300.5	1344.9
52.5°	1038.6	1065.2	1154.0	1256.1	1309.3
55°	963.1	994.2	1100.7	1211.7	1269.4
57.5°	896.6	923.2	1043.0	1167.3	1233.9
60°	812.2	847.7	985.3	1118.5	1185.1
62.5°	723.5	776.7	927.6	1065.2	1136.2
65°	639.1	701.3	874.4	1012.0	1083.0
67.5°	563.7	630.3	807.8	954.3	1020.8
70°	474.9	559.2	741.2	883.3	958.7
72.5°	395.0	488.2	665.8	807.8	874.4
75°	315.1	417.2	590.3	710.2	750.1
77.5°	244.1	341.8	506.0	541.5	545.9
80°	182.0	270.7	377.3	381.7	395.0
82.5°	124.3	190.9	244.1	266.3	270.7
85°	79.9	111.0	137.6	142.0	150.9
87.5°	35.5	39.9	48.8	44.4	44.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)