

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: P390744

Luminaire Tested: **22CZ2-85VHE-HRP-UNV-L935-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: P390744  
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-L935-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6032.4 lumens  
Efficiency: N/A  
Efficacy: 94.8 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

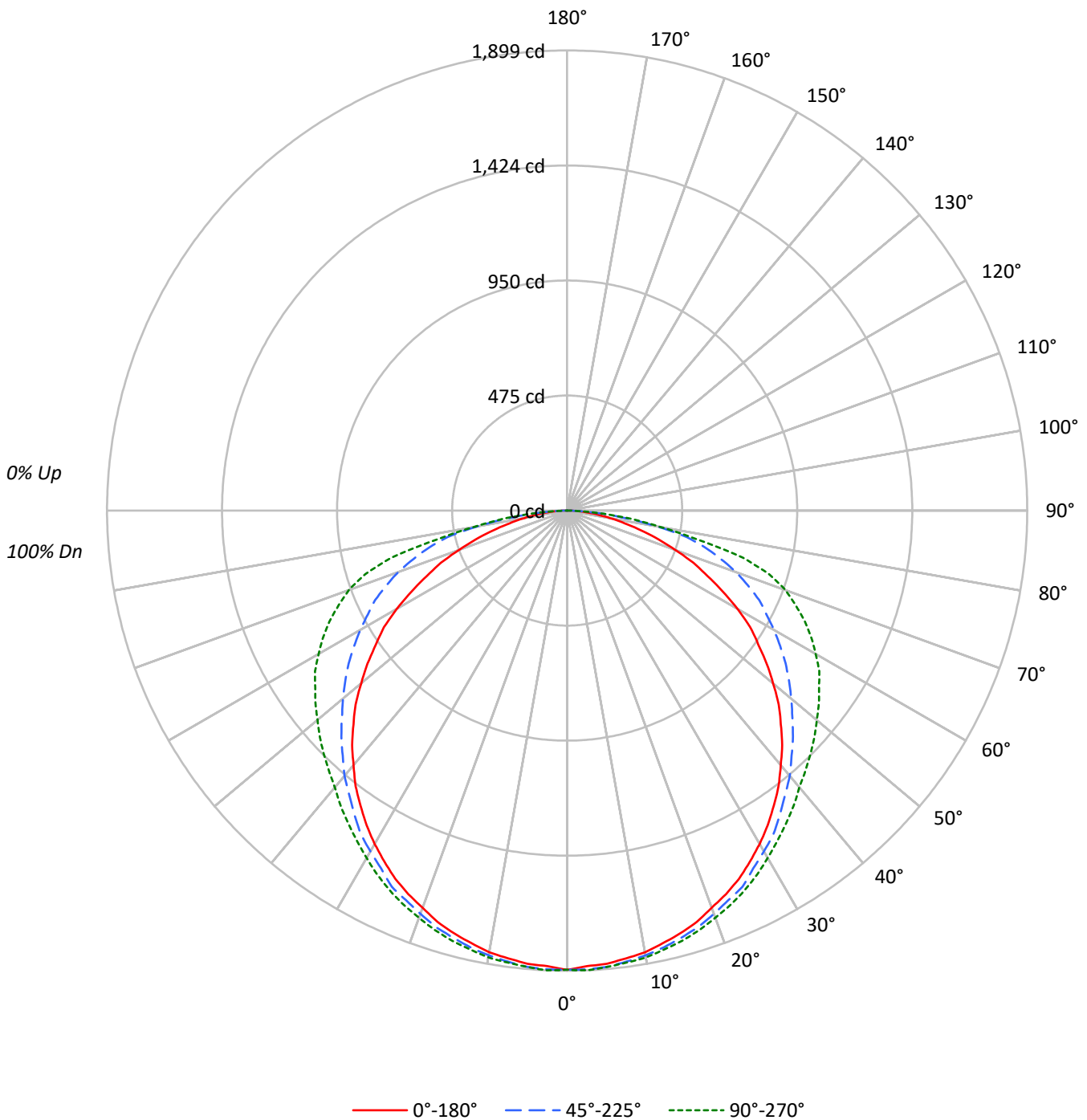
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5099	5099	5099
5°	5071	5106	5106
10°	5056	5093	5117
15°	5032	5081	5118
20°	4994	5070	5121
25°	4980	5086	5139
30°	4937	5047	5143
35°	4884	5029	5175
40°	4817	5019	5238
45°	4746	5016	5404
50°	4644	5053	5629
55°	4518	5163	5955
60°	4371	5302	6377
65°	4069	5566	6895
70°	3736	5831	7541
75°	3276	6136	7798
80°	2819	5845	6121
85°	2467	4248	4659



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.2	3.0
10°-20°	514.6	8.5
20°-30°	785.2	13.0
30°-40°	958.7	15.9
40°-50°	1025.1	17.0
50°-60°	989.4	16.4
60°-70°	851.7	14.1
70°-80°	576.3	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°	1479.1	24.5
0°-40°	2437.8	40.4
0°-60°	4452.3	73.8
0°-90°	6032.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6032.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1895	1895	1895	1895	1895	
5°	1877	1882	1890	1890	1890	178
15°	1806	1811	1824	1833	1837	510
25°	1677	1686	1713	1722	1731	772
35°	1487	1500	1531	1562	1575	930
45°	1247	1269	1318	1385	1420	963
55°	963	994	1100	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°	1894.9	1894.9	1894.9	1894.9	1894.9
2.5°	1881.6	1886.0	1894.9	1894.9	1899.3
5°	1877.1	1881.6	1890.4	1890.4	1890.4
7.5°	1863.8	1868.3	1877.1	1881.6	1881.6
10°	1850.5	1854.9	1863.8	1868.3	1872.7
12.5°	1828.3	1832.8	1846.1	1854.9	1854.9
15°	1806.1	1810.6	1823.9	1832.8	1837.2
17.5°	1779.5	1788.4	1801.7	1810.6	1815.0
20°	1744.0	1752.9	1770.6	1783.9	1788.4
22.5°	1712.9	1721.8	1739.6	1752.9	1761.8
25°	1677.4	1686.3	1712.9	1721.8	1730.7
27.5°	1633.1	1641.9	1664.1	1681.9	1695.2
30°	1588.7	1597.6	1624.2	1646.4	1655.2
32.5°	1539.9	1553.2	1584.2	1602.0	1615.3
35°	1486.6	1499.9	1531.0	1562.1	1575.4
37.5°	1433.4	1446.7	1477.7	1517.7	1535.4
40°	1371.2	1389.0	1428.9	1482.2	1491.1
42.5°	1313.5	1335.7	1371.2	1433.4	1455.6
45°	1247.0	1269.2	1318.0	1384.6	1420.1
47.5°	1184.9	1207.0	1260.3	1340.2	1384.6
50°	1109.4	1140.5	1207.0	1300.2	1344.6
52.5°	1038.4	1065.0	1153.8	1255.9	1309.1
55°	963.0	994.0	1100.5	1211.5	1269.2
57.5°	896.4	923.0	1042.9	1167.1	1233.7
60°	812.1	847.6	985.2	1118.3	1184.9
62.5°	723.3	776.6	927.5	1065.0	1136.0
65°	639.0	701.2	874.2	1011.8	1082.8
67.5°	563.6	630.1	807.7	954.1	1020.7
70°	474.8	559.1	741.1	883.1	958.5
72.5°	395.0	488.1	665.6	807.7	874.2
75°	315.1	417.1	590.2	710.0	750.0
77.5°	244.1	341.7	505.9	541.4	545.8
80°	181.9	270.7	377.2	381.6	395.0
82.5°	124.3	190.8	244.1	266.3	270.7
85°	79.9	110.9	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)