

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: P390693

Luminaire Tested: **22CZ2-80VHE-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: P390693  
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: 22CZ2-80VHE-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: 5529.4 lumens  
Efficiency: N/A  
Efficacy: 93.6 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

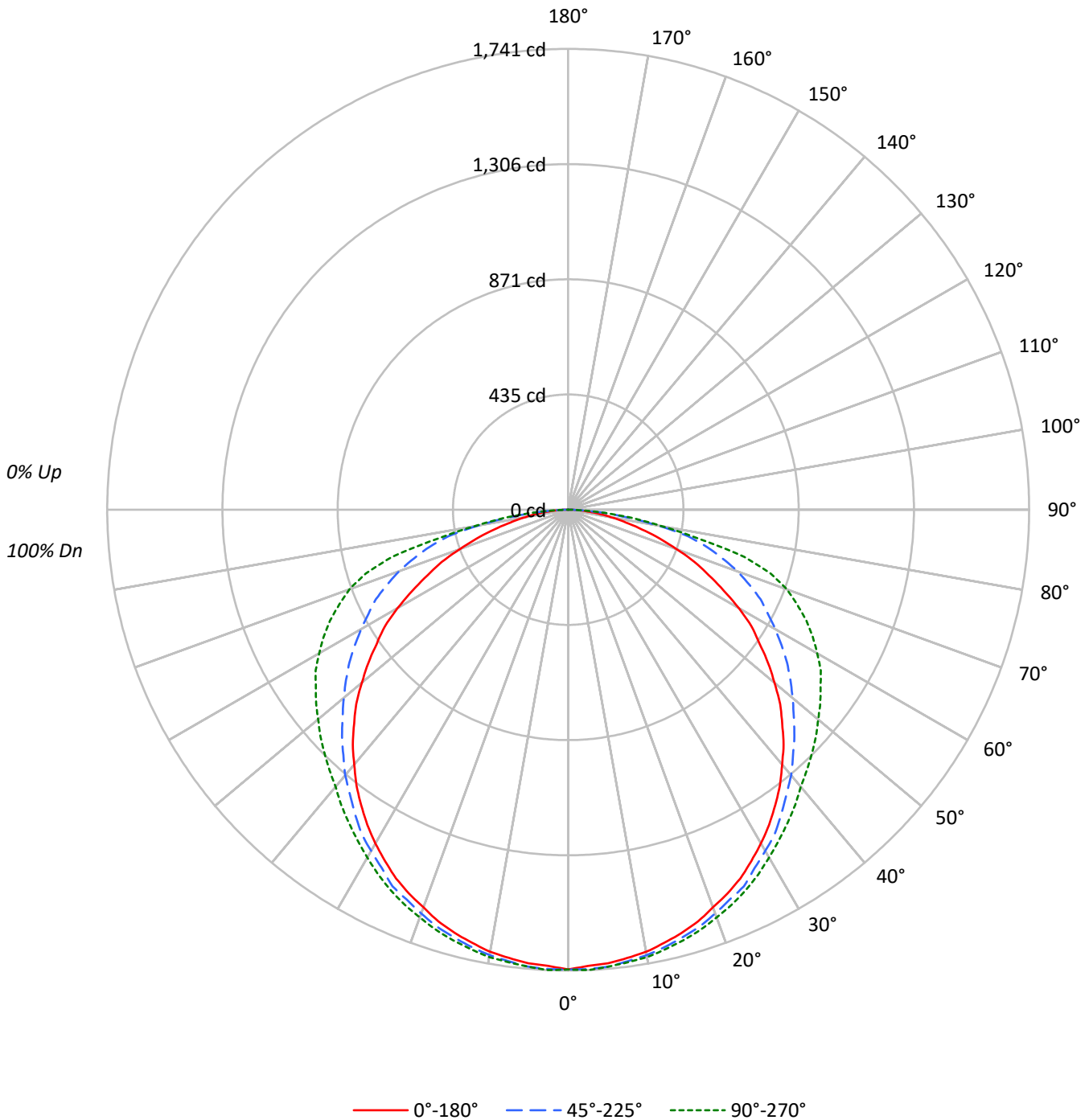
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4674	4674	4674
5°	4648	4681	4681
10°	4635	4668	4690
15°	4612	4657	4691
20°	4578	4648	4694
25°	4565	4662	4710
30°	4525	4626	4714
35°	4477	4610	4744
40°	4415	4601	4801
45°	4350	4598	4953
50°	4257	4632	5160
55°	4141	4733	5458
60°	4006	4860	5845
65°	3729	5102	6320
70°	3424	5345	6913
75°	3003	5625	7147
80°	2585	5357	5610
85°	2260	3893	4270



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.3	3.0
10°-20°	471.7	8.5
20°-30°	719.7	13.0
30°-40°	878.8	15.9
40°-50°	939.6	17.0
50°-60°	906.9	16.4
60°-70°	780.7	14.1
70°-80°	528.2	9.6
80°-90°	139.4	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°	1355.7	24.5
0°-40°	2234.5	40.4
0°-60°	4081.1	73.8
0°-90°	5529.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5529.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1737	1737	1737	1737	1737	
5°	1721	1725	1733	1733	1733	163
15°	1656	1660	1672	1680	1684	467
25°	1538	1546	1570	1578	1586	708
35°	1363	1375	1403	1432	1444	853
45°	1143	1163	1208	1269	1302	882
55°	883	911	1009	1110	1163	791
65°	586	643	801	927	992	583
75°	289	382	541	651	687	310
85°	73	102	126	130	138	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1736.9	1736.9	1736.9	1736.9	1736.9
2.5°	1724.7	1728.7	1736.9	1736.9	1740.9
5°	1720.6	1724.7	1732.8	1732.8	1732.8
7.5°	1708.4	1712.5	1720.6	1724.7	1724.7
10°	1696.2	1700.3	1708.4	1712.5	1716.5
12.5°	1675.9	1679.9	1692.1	1700.3	1700.3
15°	1655.5	1659.6	1671.8	1679.9	1684.0
17.5°	1631.1	1639.3	1651.5	1659.6	1663.7
20°	1598.6	1606.7	1623.0	1635.2	1639.3
22.5°	1570.1	1578.2	1594.5	1606.7	1614.9
25°	1537.6	1545.7	1570.1	1578.2	1586.4
27.5°	1496.9	1505.0	1525.4	1541.6	1553.8
30°	1456.2	1464.3	1488.8	1509.1	1517.2
32.5°	1411.5	1423.7	1452.1	1468.4	1480.6
35°	1362.7	1374.9	1403.3	1431.8	1444.0
37.5°	1313.8	1326.0	1354.5	1391.1	1407.4
40°	1256.9	1273.2	1309.8	1358.6	1366.7
42.5°	1204.0	1224.4	1256.9	1313.8	1334.2
45°	1143.0	1163.3	1208.1	1269.1	1301.6
47.5°	1086.1	1106.4	1155.2	1228.4	1269.1
50°	1016.9	1045.4	1106.4	1191.8	1232.5
52.5°	951.8	976.2	1057.6	1151.1	1200.0
55°	882.7	911.2	1008.8	1110.5	1163.3
57.5°	821.7	846.1	955.9	1069.8	1130.8
60°	744.4	776.9	903.0	1025.0	1086.1
62.5°	663.0	711.8	850.1	976.2	1041.3
65°	585.7	642.7	801.3	927.4	992.5
67.5°	516.6	577.6	740.3	874.5	935.6
70°	435.2	512.5	679.3	809.5	878.6
72.5°	362.0	447.4	610.1	740.3	801.3
75°	288.8	382.4	541.0	650.8	687.4
77.5°	223.7	313.2	463.7	496.3	500.3
80°	166.8	248.1	345.7	349.8	362.0
82.5°	113.9	174.9	223.7	244.1	248.1
85°	73.2	101.7	126.1	130.2	138.3
87.5°	32.5	36.6	44.7	40.7	40.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)