

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: P390651

Luminaire Tested: **22CZ2-75VHE-HRP-UNV-L940-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: P390651  
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: 22CZ2-75VHE-HRP-UNV-L940-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5346.3 lumens  
Efficiency: N/A  
Efficacy: 97.7 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

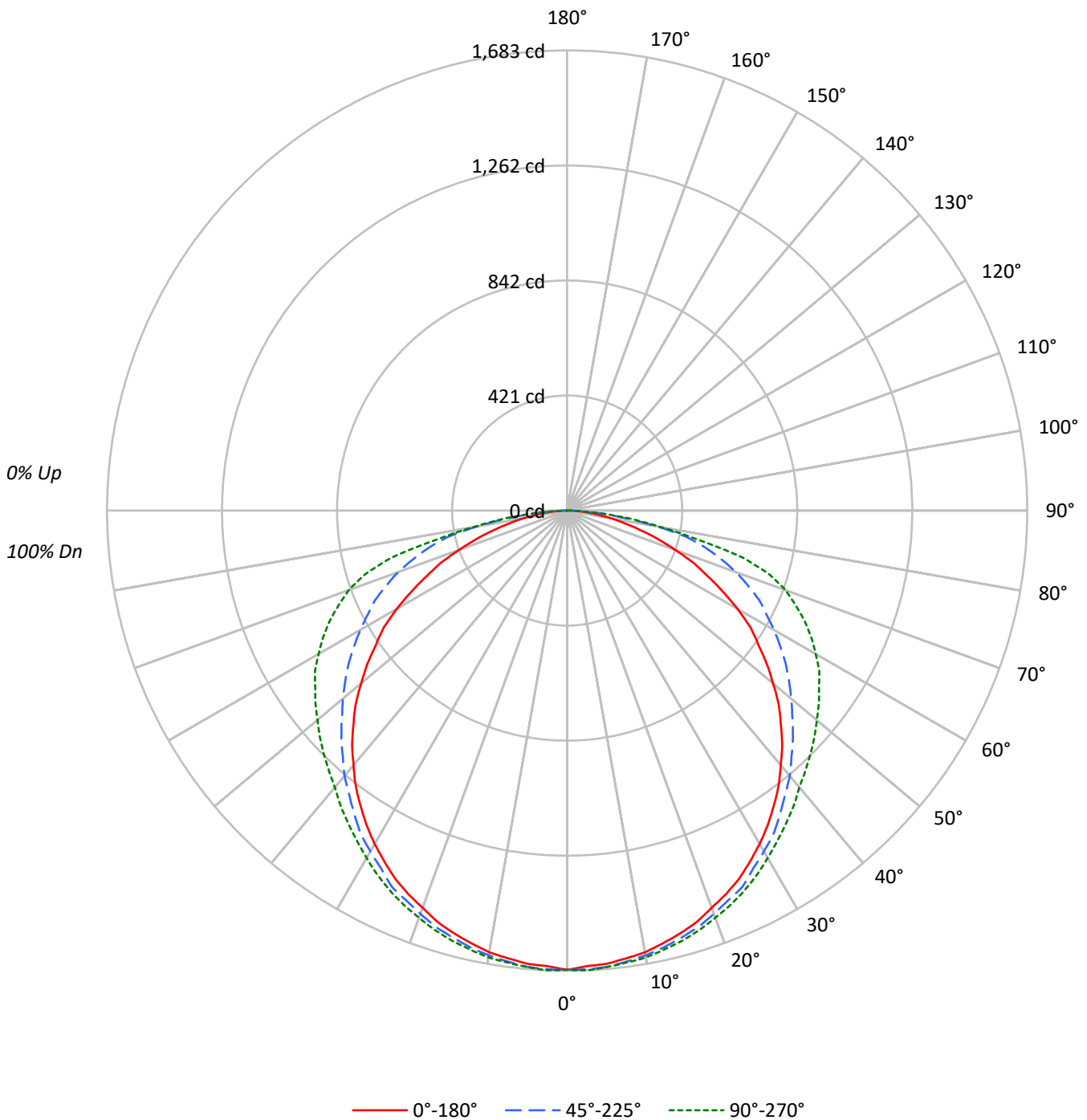
Input Watts (W): 54.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4519	4519	4519
5°	4494	4526	4526
10°	4481	4514	4535
15°	4459	4503	4536
20°	4426	4494	4539
25°	4414	4507	4554
30°	4375	4473	4558
35°	4328	4458	4587
40°	4269	4449	4642
45°	4206	4445	4789
50°	4116	4479	4989
55°	4004	4576	5277
60°	3873	4699	5652
65°	3606	4933	6110
70°	3311	5168	6684
75°	2903	5439	6911
80°	2500	5181	5424
85°	2186	3764	4128



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.9	3.0
10°-20°	456.1	8.5
20°-30°	695.9	13.0
30°-40°	849.7	15.9
40°-50°	908.5	17.0
50°-60°	876.9	16.4
60°-70°	754.9	14.1
70°-80°	510.7	9.6
80°-90°	134.8	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°	1310.8	24.5
0°-40°	2160.5	40.4
0°-60°	3946.0	73.8
0°-90°	5346.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5346.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1679	1679	1679	1679	1679	
5°	1664	1668	1675	1675	1675	158
15°	1601	1605	1616	1624	1628	452
25°	1487	1494	1518	1526	1534	684
35°	1318	1329	1357	1384	1396	824
45°	1105	1125	1168	1227	1258	853
55°	853	881	975	1074	1125	765
65°	566	621	775	897	960	563
75°	279	370	523	629	665	300
85°	71	98	122	126	134	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1679.4	1679.4	1679.4	1679.4	1679.4
2.5°	1667.6	1671.5	1679.4	1679.4	1683.3
5°	1663.6	1667.6	1675.4	1675.4	1675.4
7.5°	1651.8	1655.8	1663.6	1667.6	1667.6
10°	1640.0	1644.0	1651.8	1655.8	1659.7
12.5°	1620.4	1624.3	1636.1	1644.0	1644.0
15°	1600.7	1604.6	1616.4	1624.3	1628.2
17.5°	1577.1	1585.0	1596.8	1604.6	1608.6
20°	1545.6	1553.5	1569.2	1581.0	1585.0
22.5°	1518.1	1526.0	1541.7	1553.5	1561.4
25°	1486.7	1494.5	1518.1	1526.0	1533.8
27.5°	1447.3	1455.2	1474.9	1490.6	1502.4
30°	1408.0	1415.9	1439.5	1459.1	1467.0
32.5°	1364.7	1376.5	1404.1	1419.8	1431.6
35°	1317.5	1329.3	1356.9	1384.4	1396.2
37.5°	1270.3	1282.1	1309.7	1345.1	1360.8
40°	1215.3	1231.0	1266.4	1313.6	1321.5
42.5°	1164.2	1183.8	1215.3	1270.3	1290.0
45°	1105.2	1124.8	1168.1	1227.1	1258.5
47.5°	1050.1	1069.8	1117.0	1187.7	1227.1
50°	983.2	1010.8	1069.8	1152.4	1191.7
52.5°	920.3	943.9	1022.6	1113.0	1160.2
55°	853.4	881.0	975.4	1073.7	1124.8
57.5°	794.5	818.1	924.2	1034.4	1093.4
60°	719.7	751.2	873.1	991.1	1050.1
62.5°	641.1	688.3	822.0	943.9	1006.8
65°	566.3	621.4	774.8	896.7	959.6
67.5°	499.5	558.5	715.8	845.6	904.6
70°	420.8	495.6	656.8	782.7	849.5
72.5°	350.0	432.6	589.9	715.8	774.8
75°	279.2	369.7	523.1	629.3	664.7
77.5°	216.3	302.8	448.4	479.8	483.8
80°	161.3	239.9	334.3	338.2	350.0
82.5°	110.1	169.1	216.3	236.0	239.9
85°	70.8	98.3	121.9	125.9	133.7
87.5°	31.5	35.4	43.3	39.3	39.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)