

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: P390648

Luminaire Tested: **22CZ2-75VHE-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: P390648  
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-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: 5291.5 lumens  
Efficiency: N/A  
Efficacy: 96.7 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

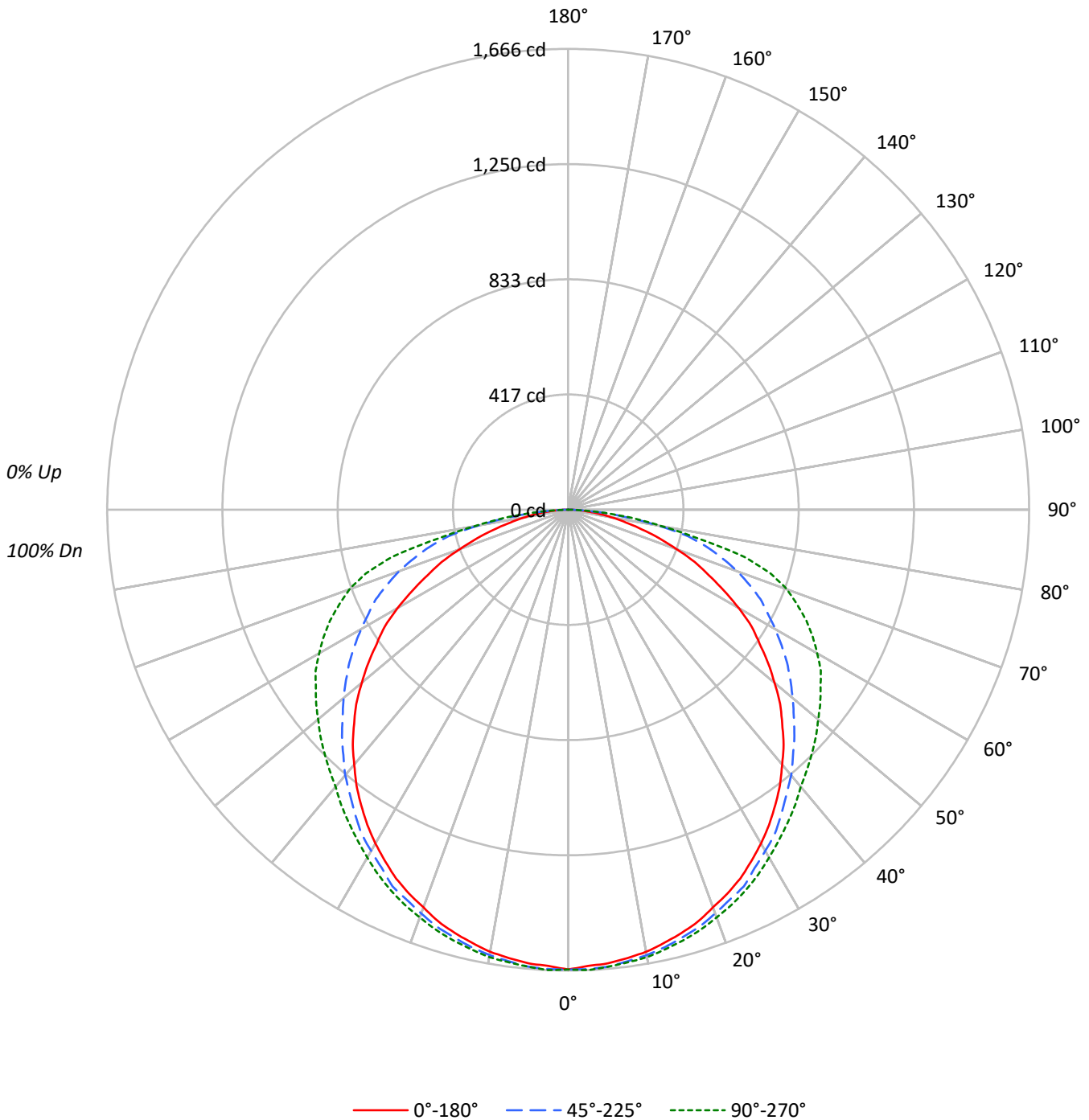
Input Watts (W): 54.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4473	4473	4473
5°	4448	4479	4479
10°	4435	4467	4489
15°	4414	4457	4489
20°	4381	4448	4492
25°	4369	4461	4507
30°	4330	4427	4512
35°	4284	4412	4540
40°	4225	4403	4594
45°	4163	4400	4740
50°	4074	4433	4938
55°	3963	4529	5223
60°	3834	4651	5593
65°	3569	4883	6048
70°	3277	5115	6615
75°	2874	5383	6840
80°	2473	5128	5368
85°	2164	3727	4085



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.2	3.0
10°-20°	451.4	8.5
20°-30°	688.7	13.0
30°-40°	841.0	15.9
40°-50°	899.2	17.0
50°-60°	867.9	16.4
60°-70°	747.1	14.1
70°-80°	505.5	9.6
80°-90°	133.4	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°	1297.4	24.5
0°-40°	2138.4	40.4
0°-60°	3905.5	73.8
0°-90°	5291.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5291.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1662	1662	1662	1662	1662	
5°	1647	1650	1658	1658	1658	156
15°	1584	1588	1600	1608	1612	447
25°	1471	1479	1503	1510	1518	677
35°	1304	1316	1343	1370	1382	816
45°	1094	1113	1156	1214	1246	844
55°	845	872	965	1063	1113	757
65°	560	615	767	888	950	557
75°	276	366	518	623	658	297
85°	70	97	121	125	132	79
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1662.2	1662.2	1662.2	1662.2	1662.2
2.5°	1650.5	1654.4	1662.2	1662.2	1666.0
5°	1646.6	1650.5	1658.3	1658.3	1658.3
7.5°	1634.9	1638.8	1646.6	1650.5	1650.5
10°	1623.2	1627.1	1634.9	1638.8	1642.7
12.5°	1603.8	1607.7	1619.3	1627.1	1627.1
15°	1584.3	1588.2	1599.9	1607.7	1611.5
17.5°	1560.9	1568.7	1580.4	1588.2	1592.1
20°	1529.8	1537.6	1553.2	1564.8	1568.7
22.5°	1502.6	1510.3	1525.9	1537.6	1545.4
25°	1471.4	1479.2	1502.6	1510.3	1518.1
27.5°	1432.5	1440.3	1459.7	1475.3	1487.0
30°	1393.6	1401.3	1424.7	1444.2	1452.0
32.5°	1350.7	1362.4	1389.7	1405.2	1416.9
35°	1304.0	1315.7	1343.0	1370.2	1381.9
37.5°	1257.3	1269.0	1296.2	1331.3	1346.8
40°	1202.8	1218.4	1253.4	1300.1	1307.9
42.5°	1152.2	1171.7	1202.8	1257.3	1276.8
45°	1093.8	1113.3	1156.1	1214.5	1245.6
47.5°	1039.3	1058.8	1105.5	1175.6	1214.5
50°	973.2	1000.4	1058.8	1140.5	1179.5
52.5°	910.9	934.2	1012.1	1101.6	1148.3
55°	844.7	871.9	965.4	1062.7	1113.3
57.5°	786.3	809.7	914.8	1023.8	1082.2
60°	712.4	743.5	864.2	980.9	1039.3
62.5°	634.5	681.2	813.6	934.2	996.5
65°	560.5	615.0	766.8	887.5	949.8
67.5°	494.4	552.8	708.5	836.9	895.3
70°	416.5	490.5	650.1	774.6	840.8
72.5°	346.4	428.2	583.9	708.5	766.8
75°	276.4	365.9	517.7	622.8	657.9
77.5°	214.1	299.7	443.8	474.9	478.8
80°	159.6	237.5	330.9	334.8	346.4
82.5°	109.0	167.4	214.1	233.6	237.5
85°	70.1	97.3	120.7	124.6	132.3
87.5°	31.1	35.0	42.8	38.9	38.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)