

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: P390652

Luminaire Tested: **22CZ2-75VHE-HRP-UNV-L940-CD1-SWPD1-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: P390652  
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-SWPD1-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: 5411.6 lumens  
Efficiency: N/A  
Efficacy: 98.9 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

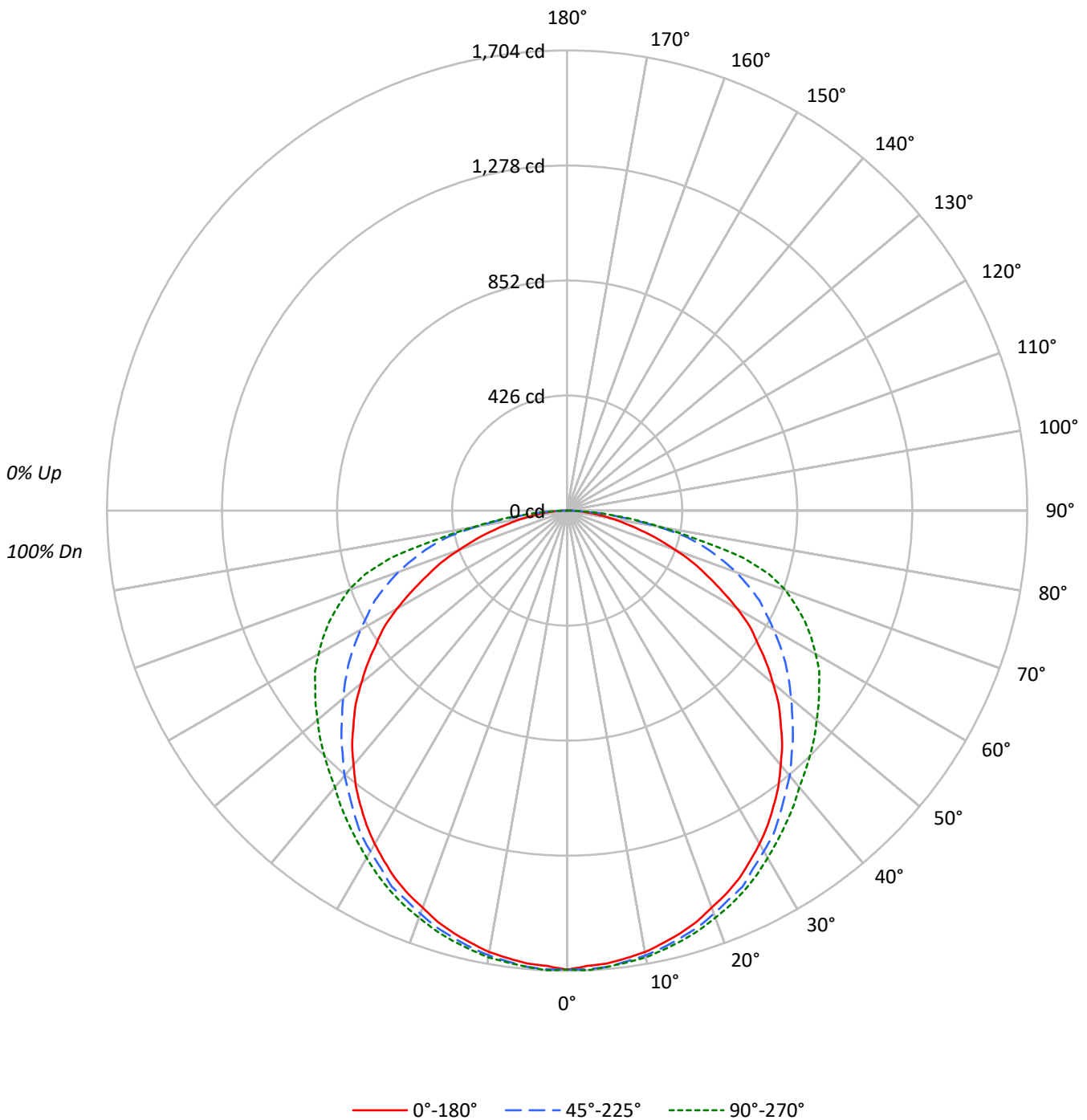
Input Watts (W): 54.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4574	4574	4574
5°	4549	4581	4581
10°	4536	4569	4591
15°	4514	4558	4591
20°	4480	4549	4594
25°	4468	4563	4610
30°	4428	4527	4614
35°	4381	4512	4642
40°	4321	4503	4699
45°	4257	4500	4848
50°	4166	4533	5050
55°	4053	4632	5342
60°	3921	4757	5720
65°	3650	4994	6185
70°	3352	5231	6766
75°	2938	5505	6995
80°	2529	5244	5490
85°	2214	3810	4181



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.8	3.0
10°-20°	461.7	8.5
20°-30°	704.4	13.0
30°-40°	860.1	15.9
40°-50°	919.6	17.0
50°-60°	887.6	16.4
60°-70°	764.1	14.1
70°-80°	517.0	9.6
80°-90°	136.4	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°	1326.9	24.5
0°-40°	2186.9	40.4
0°-60°	3994.1	73.8
0°-90°	5411.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5411.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1684	1688	1696	1696	1696	160
15°	1620	1624	1636	1644	1648	457
25°	1505	1513	1537	1545	1553	693
35°	1334	1346	1373	1401	1413	834
45°	1119	1139	1182	1242	1274	863
55°	864	892	987	1087	1139	774
65°	573	629	784	908	971	570
75°	283	374	530	637	673	303
85°	72	100	123	127	135	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1699.9	1699.9	1699.9	1699.9	1699.9
2.5°	1687.9	1691.9	1699.9	1699.9	1703.9
5°	1684.0	1687.9	1695.9	1695.9	1695.9
7.5°	1672.0	1676.0	1684.0	1687.9	1687.9
10°	1660.1	1664.0	1672.0	1676.0	1680.0
12.5°	1640.2	1644.1	1656.1	1664.0	1664.0
15°	1620.3	1624.2	1636.2	1644.1	1648.1
17.5°	1596.4	1604.3	1616.3	1624.2	1628.2
20°	1564.5	1572.5	1588.4	1600.4	1604.3
22.5°	1536.7	1544.6	1560.5	1572.5	1580.4
25°	1504.8	1512.8	1536.7	1544.6	1552.6
27.5°	1465.0	1473.0	1492.9	1508.8	1520.7
30°	1425.2	1433.2	1457.0	1476.9	1484.9
32.5°	1381.4	1393.3	1421.2	1437.1	1449.1
35°	1333.6	1345.6	1373.4	1401.3	1413.2
37.5°	1285.9	1297.8	1325.7	1361.5	1377.4
40°	1230.1	1246.0	1281.9	1329.6	1337.6
42.5°	1178.4	1198.3	1230.1	1285.9	1305.8
45°	1118.7	1138.6	1182.4	1242.1	1273.9
47.5°	1062.9	1082.8	1130.6	1202.3	1242.1
50°	995.2	1023.1	1082.8	1166.4	1206.2
52.5°	931.5	955.4	1035.1	1126.6	1174.4
55°	863.9	891.7	987.3	1086.8	1138.6
57.5°	804.2	828.0	935.5	1047.0	1106.7
60°	728.5	760.4	883.8	1003.2	1062.9
62.5°	648.9	696.7	832.0	955.4	1019.1
65°	573.3	629.0	784.3	907.7	971.4
67.5°	505.6	565.3	724.5	855.9	915.6
70°	426.0	501.6	664.8	792.2	859.9
72.5°	354.3	437.9	597.1	724.5	784.3
75°	282.6	374.2	529.5	637.0	672.8
77.5°	219.0	306.5	453.8	485.7	489.7
80°	163.2	242.8	338.4	342.4	354.3
82.5°	111.5	171.2	219.0	238.9	242.8
85°	71.7	99.5	123.4	127.4	135.4
87.5°	31.8	35.8	43.8	39.8	39.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)