

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: P390174

Luminaire Tested: **22CZ2-24VHE-HRP-UNV-L950-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: P390174  
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: 22CZ2-24VHE-HRP-UNV-L950-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

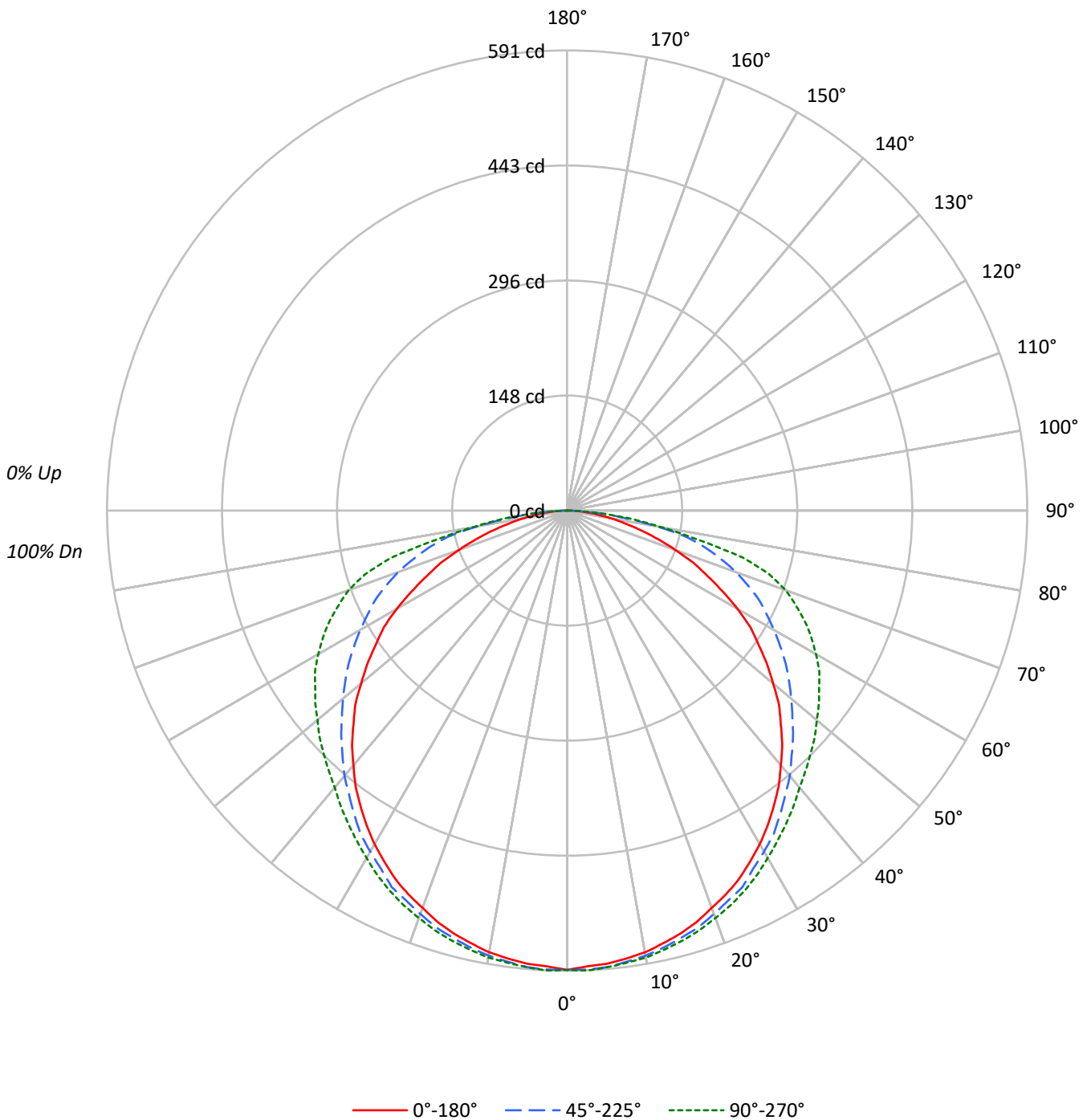
Lumens per Lamp: N/A  
Luminaire Lumens: 1878.1 lumens  
Efficiency: N/A  
Efficacy: 107.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1587	1587	1587
5°	1579	1590	1590
10°	1574	1586	1593
15°	1567	1582	1594
20°	1555	1579	1594
25°	1550	1583	1600
30°	1537	1571	1601
35°	1520	1566	1611
40°	1500	1563	1631
45°	1477	1561	1682
50°	1446	1573	1752
55°	1407	1607	1854
60°	1361	1651	1985
65°	1267	1733	2146
70°	1163	1815	2348
75°	1020	1911	2428
80°	877	1819	1906
85°	769	1321	1451



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.8	3.0
10°-20°	160.2	8.5
20°-30°	244.5	13.0
30°-40°	298.5	15.9
40°-50°	319.2	17.0
50°-60°	308.1	16.4
60°-70°	265.2	14.1
70°-80°	179.4	9.6
80°-90°	47.3	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°	460.5	24.5
0°-40°	759.0	40.4
0°-60°	1386.2	73.8
0°-90°	1878.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1878.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	590	590	590	590	590	
5°	584	586	589	589	589	55
15°	562	564	568	571	572	159
25°	522	525	533	536	539	240
35°	463	467	477	486	490	290
45°	388	395	410	431	442	300
55°	300	310	343	377	395	269
65°	199	218	272	315	337	198
75°	98	130	184	221	234	105
85°	25	34	43	44	47	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	589.9	589.9	589.9	589.9	589.9
2.5°	585.8	587.2	589.9	589.9	591.3
5°	584.4	585.8	588.6	588.6	588.6
7.5°	580.3	581.7	584.4	585.8	585.8
10°	576.1	577.5	580.3	581.7	583.0
12.5°	569.2	570.6	574.7	577.5	577.5
15°	562.3	563.7	567.8	570.6	572.0
17.5°	554.0	556.8	560.9	563.7	565.1
20°	543.0	545.7	551.3	555.4	556.8
22.5°	533.3	536.1	541.6	545.7	548.5
25°	522.2	525.0	533.3	536.1	538.8
27.5°	508.4	511.2	518.1	523.6	527.8
30°	494.6	497.4	505.7	512.6	515.3
32.5°	479.4	483.6	493.2	498.8	502.9
35°	462.8	467.0	476.7	486.3	490.5
37.5°	446.3	450.4	460.1	472.5	478.0
40°	426.9	432.4	444.9	461.5	464.2
42.5°	409.0	415.9	426.9	446.3	453.2
45°	388.2	395.1	410.3	431.1	442.1
47.5°	368.9	375.8	392.4	417.2	431.1
50°	345.4	355.1	375.8	404.8	418.6
52.5°	323.3	331.6	359.2	391.0	407.6
55°	299.8	309.5	342.6	377.2	395.1
57.5°	279.1	287.4	324.7	363.4	384.1
60°	252.8	263.9	306.7	348.2	368.9
62.5°	225.2	241.8	288.8	331.6	353.7
65°	199.0	218.3	272.2	315.0	337.1
67.5°	175.5	196.2	251.5	297.0	317.8
70°	147.8	174.1	230.7	274.9	298.4
72.5°	123.0	152.0	207.2	251.5	272.2
75°	98.1	129.9	183.8	221.1	233.5
77.5°	76.0	106.4	157.5	168.6	169.9
80°	56.6	84.3	117.4	118.8	123.0
82.5°	38.7	59.4	76.0	82.9	84.3
85°	24.9	34.5	42.8	44.2	47.0
87.5°	11.1	12.4	15.2	13.8	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)