

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: P881209

Luminaire Tested: **24CZ2-45VHE-UNV-B35**

Issue Date: 10/2/2024

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: P881209
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P473819)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 10/2/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45VHE-UNV-B35
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND RIBBED LENS

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

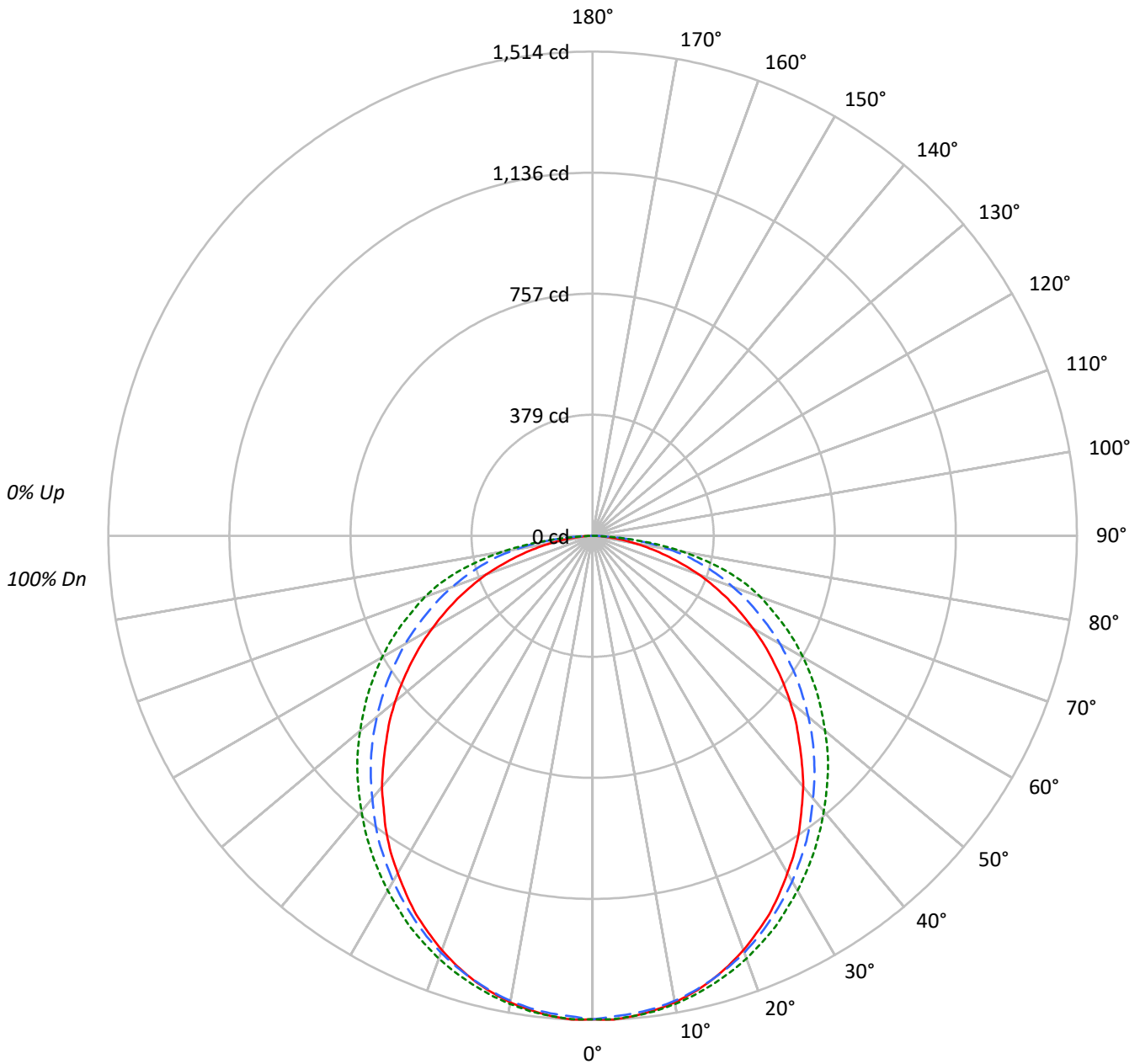
Lumens per Lamp: N/A
Luminaire Lumens: 4376.0 lumens
Efficiency: N/A
Efficacy: 128.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 34
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	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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83			83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68			68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57			57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48			48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42			42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37			37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32			32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29			29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26			26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23			23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2134	2134	2134
5°	2135	2124	2135
10°	2124	2117	2131
15°	2102	2101	2122
20°	2071	2083	2113
25°	2035	2058	2103
30°	1985	2033	2088
35°	1940	2007	2079
40°	1887	1974	2071
45°	1823	1954	2077
50°	1768	1933	2083
55°	1703	1919	2107
60°	1632	1910	2145
65°	1556	1903	2201
70°	1464	1922	2301
75°	1288	1962	2394
80°	1075	1977	2310
85°	768	1694	1716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.9	3.3
10°-20°	407.2	9.3
20°-30°	610.8	14.0
30°-40°	729.3	16.7
40°-50°	755.4	17.3
50°-60°	695.4	15.9
60°-70°	561.0	12.8
70°-80°	366.5	8.4
80°-90°	107.4	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°	1161.0	26.5
0°-40°	1890.2	43.2
0°-60°	3341.1	76.3
0°-90°	4376.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4376.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1512	1512	1512	1512	1512	
5°	1507	1506	1499	1508	1507	143
15°	1439	1439	1438	1452	1452	405
25°	1306	1309	1321	1345	1350	601
35°	1126	1136	1165	1197	1207	703
45°	913	936	979	1023	1041	706
55°	692	722	780	837	856	619
65°	466	498	570	635	659	461
75°	236	281	360	422	439	252
85°	47	82	105	111	106	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1512.1	1512.1	1512.1	1512.1	1512.1
2.5°	1514.3	1512.1	1504.4	1513.6	1512.9
5°	1507.2	1505.8	1499.4	1507.9	1507.2
7.5°	1495.9	1495.2	1490.3	1499.4	1499.4
10°	1481.8	1480.4	1476.9	1487.4	1486.7
12.5°	1462.0	1461.3	1459.2	1471.9	1471.2
15°	1438.6	1438.6	1437.9	1452.2	1452.2
17.5°	1410.4	1411.1	1413.9	1430.1	1430.8
20°	1378.6	1381.4	1387.1	1405.4	1406.8
22.5°	1342.5	1348.1	1355.9	1376.5	1378.6
25°	1306.5	1309.3	1321.3	1345.3	1350.2
27.5°	1262.6	1269.8	1285.3	1310.0	1314.9
30°	1218.1	1228.0	1247.7	1273.3	1281.1
32.5°	1174.2	1182.8	1206.1	1235.0	1244.2
35°	1126.2	1136.1	1165.0	1196.9	1206.8
37.5°	1073.1	1088.7	1119.1	1155.9	1166.4
40°	1024.4	1038.5	1071.7	1112.8	1124.1
42.5°	968.5	986.2	1026.5	1068.2	1082.3
45°	913.3	936.1	979.1	1023.0	1040.7
47.5°	861.8	880.2	931.1	980.5	996.1
50°	805.2	826.4	880.2	932.5	948.8
52.5°	749.4	774.8	829.2	884.4	902.0
55°	692.1	721.8	779.8	837.1	856.2
57.5°	636.9	666.7	726.7	787.6	807.3
60°	578.3	610.1	676.6	735.2	760.0
62.5°	521.7	553.5	623.5	687.2	710.5
65°	465.8	497.7	569.9	634.8	659.0
67.5°	408.0	442.5	519.6	582.6	605.9
70°	354.9	388.1	465.8	533.0	557.7
72.5°	294.0	333.7	412.9	479.3	502.7
75°	236.2	280.6	359.8	422.1	439.0
77.5°	182.4	227.0	306.0	352.8	363.4
80°	132.3	177.4	243.2	275.7	284.2
82.5°	85.5	132.3	176.0	197.9	200.7
85°	47.4	82.0	104.6	111.0	106.0
87.5°	16.9	31.1	30.4	24.7	19.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)