

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: P881203

Luminaire Tested: **24CZ2-45VHE-S-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: P881203
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P473969)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 10/2/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45VHE-S-UNV-B35
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND SMOOTH LENS

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

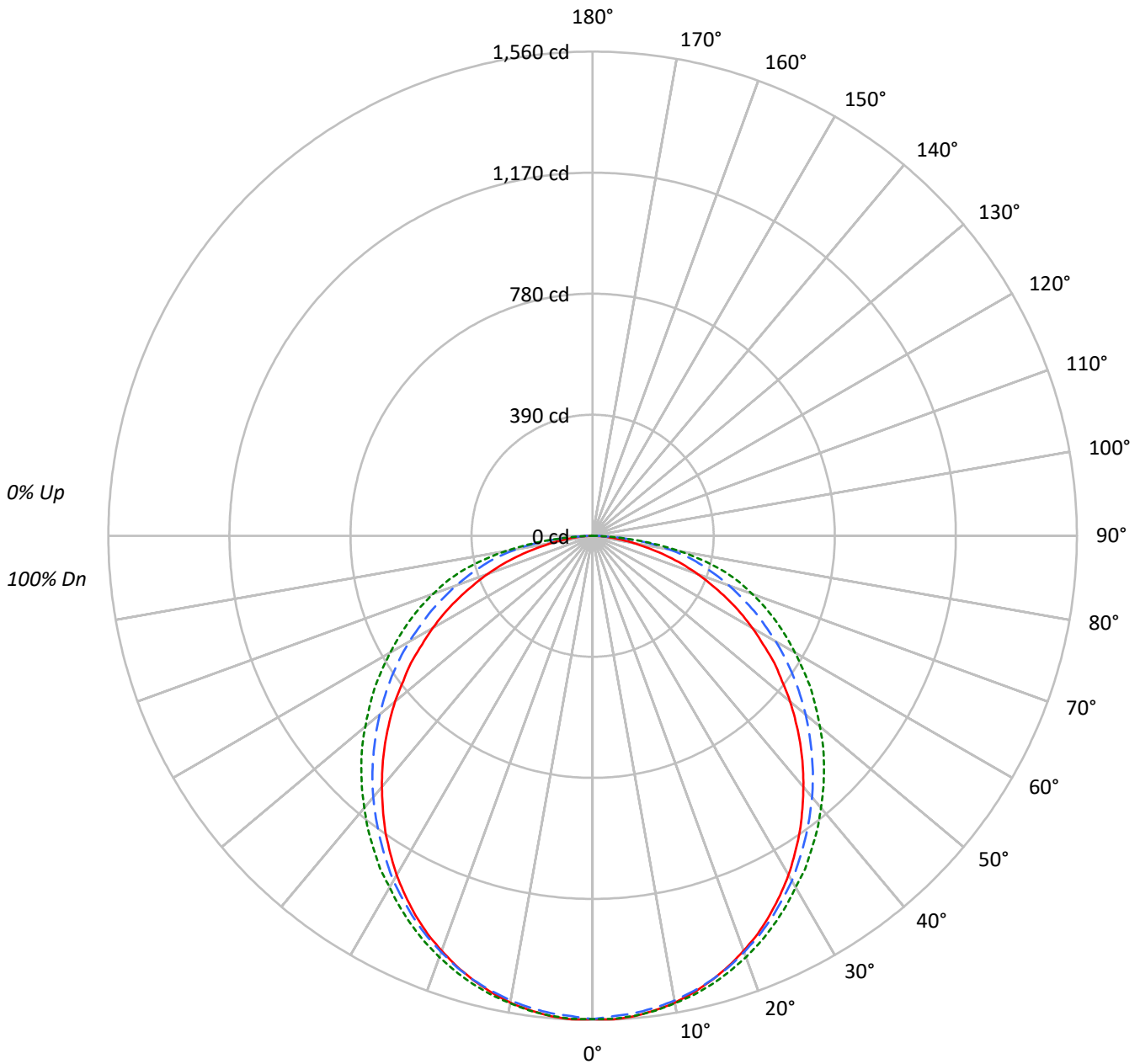
Lumens per Lamp: N/A
Luminaire Lumens: 4462.0 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

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									
RC	80									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																			
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83																			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68																			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57																			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49																			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42																			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37																			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32																			
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29																			
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26																			
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2198	2198	2198
5°	2201	2188	2199
10°	2189	2179	2192
15°	2166	2165	2184
20°	2136	2143	2170
25°	2101	2119	2153
30°	2057	2093	2132
35°	2005	2056	2120
40°	1946	2026	2108
45°	1887	1994	2104
50°	1823	1967	2099
55°	1758	1942	2110
60°	1678	1924	2124
65°	1589	1916	2176
70°	1482	1927	2253
75°	1319	1982	2374
80°	1078	2025	2317
85°	759	1768	1804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.2	3.3
10°-20°	419.4	9.4
20°-30°	628.6	14.1
30°-40°	748.7	16.8
40°-50°	772.0	17.3
50°-60°	704.4	15.8
60°-70°	563.3	12.6
70°-80°	367.9	8.2
80°-90°	110.5	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°	1195.2	26.8
0°-40°	1943.9	43.6
0°-60°	3420.3	76.7
0°-90°	4462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4462.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1558	1558	1558	1558	1558	
5°	1554	1551	1544	1554	1552	147
15°	1483	1483	1482	1494	1494	418
25°	1349	1352	1361	1381	1382	621
35°	1164	1172	1193	1223	1230	727
45°	946	962	999	1041	1054	729
55°	715	735	789	841	858	636
65°	476	508	574	630	652	472
75°	242	282	364	422	435	257
85°	47	84	109	111	111	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1557.5	1557.5	1557.5	1557.5	1557.5
2.5°	1559.7	1557.5	1549.3	1559.0	1557.5
5°	1553.8	1550.8	1544.2	1553.8	1552.4
7.5°	1542.0	1540.5	1534.0	1544.9	1543.5
10°	1527.4	1525.9	1520.8	1531.8	1529.6
12.5°	1506.9	1506.2	1502.5	1515.7	1514.2
15°	1482.6	1483.4	1481.9	1494.5	1494.5
17.5°	1454.8	1454.1	1457.0	1472.4	1470.9
20°	1422.5	1423.3	1426.9	1444.6	1444.6
22.5°	1388.9	1388.2	1396.2	1413.8	1415.2
25°	1349.3	1351.5	1361.0	1380.9	1382.3
27.5°	1306.7	1310.5	1322.2	1344.9	1347.1
30°	1262.1	1266.5	1284.0	1305.3	1308.2
32.5°	1213.0	1222.5	1238.6	1265.8	1273.1
35°	1163.8	1171.9	1193.2	1223.2	1230.5
37.5°	1109.6	1122.8	1147.0	1179.9	1189.6
40°	1056.1	1069.4	1099.4	1133.9	1144.1
42.5°	1001.8	1015.9	1050.2	1089.1	1100.1
45°	945.5	962.3	998.9	1040.7	1053.9
47.5°	887.6	907.4	947.0	992.3	1007.1
50°	830.4	850.2	895.7	942.5	955.8
52.5°	768.9	793.7	842.1	892.7	905.9
55°	714.6	735.1	789.4	841.4	857.5
57.5°	650.9	678.7	736.6	789.4	804.7
60°	594.4	620.0	681.6	735.1	752.6
62.5°	537.2	563.6	625.1	686.0	702.2
65°	475.7	507.9	573.8	630.3	651.6
67.5°	417.0	450.7	518.2	578.2	600.3
70°	359.1	393.5	466.9	528.5	546.0
72.5°	302.0	337.9	414.1	474.2	494.7
75°	241.9	282.2	363.5	422.2	435.3
77.5°	185.4	230.2	312.2	351.8	361.3
80°	132.6	181.8	249.2	277.8	285.1
82.5°	87.2	134.8	186.2	201.5	199.3
85°	46.9	84.2	109.2	111.4	111.4
87.5°	18.3	33.8	34.5	26.3	24.9
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)