

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: P276635

Luminaire Tested: **24CZ2-50HE-S-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

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: P276635  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-S-UNV-L92765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4274.2 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

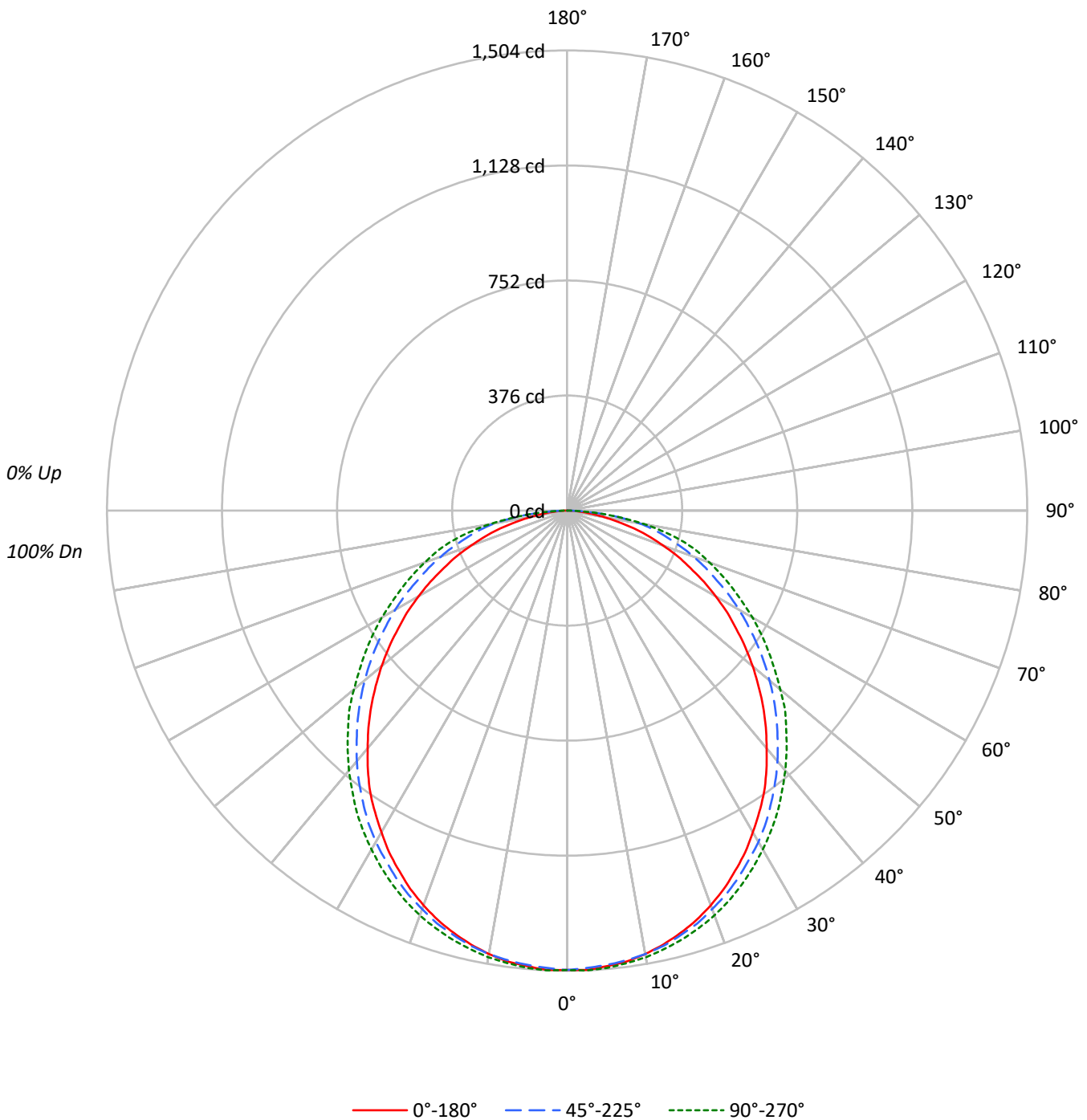
Input Watts (W): 35.805  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2020	2020	2020
5°	2019	2013	2026
10°	2011	2011	2025
15°	1991	2001	2022
20°	1965	1985	2016
25°	1929	1965	2003
30°	1886	1943	1987
35°	1844	1911	1971
40°	1781	1879	1948
45°	1723	1842	1927
50°	1657	1807	1904
55°	1583	1774	1885
60°	1509	1746	1882
65°	1413	1716	1893
70°	1308	1725	1944
75°	1172	1758	2054
80°	947	1862	2009
85°	713	1635	1593



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.2	3.3
10°-20°	406.2	9.5
20°-30°	610.6	14.3
30°-40°	727.3	17.0
40°-50°	744.4	17.4
50°-60°	670.1	15.7
60°-70°	526.3	12.3
70°-80°	341.6	8.0
80°-90°	105.6	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°	1158.9	27.1
0°-40°	1886.2	44.1
0°-60°	3300.7	77.2
0°-90°	4274.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4274.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1502	1502	1502	1502	1502	
5°	1495	1498	1491	1499	1500	142
15°	1430	1434	1436	1449	1451	403
25°	1299	1310	1324	1345	1350	599
35°	1123	1136	1164	1192	1200	700
45°	906	927	968	1005	1013	698
55°	675	705	756	796	804	605
65°	444	478	539	584	595	442
75°	225	269	338	384	395	238
85°	46	86	106	103	103	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1501.5	1501.5	1501.5	1501.5	1501.5
2.5°	1502.9	1502.9	1496.1	1502.9	1504.3
5°	1494.8	1497.5	1490.7	1498.8	1500.2
7.5°	1486.6	1486.6	1482.5	1490.7	1492.0
10°	1471.7	1473.0	1471.7	1481.2	1482.5
12.5°	1452.7	1455.4	1456.7	1466.2	1467.6
15°	1429.6	1433.7	1436.4	1448.6	1451.3
17.5°	1403.8	1407.9	1414.7	1428.2	1430.9
20°	1372.6	1378.0	1386.1	1403.8	1407.9
22.5°	1338.6	1344.1	1357.6	1373.9	1380.7
25°	1299.3	1310.1	1323.7	1345.4	1349.5
27.5°	1259.9	1269.4	1287.0	1310.1	1315.5
30°	1213.7	1228.7	1250.4	1273.5	1278.9
32.5°	1168.9	1183.9	1209.7	1234.1	1240.9
35°	1122.8	1136.3	1163.5	1192.0	1200.2
37.5°	1069.8	1087.5	1117.3	1145.8	1154.0
40°	1014.2	1035.9	1069.8	1099.7	1109.2
42.5°	961.2	984.3	1018.2	1050.8	1061.7
45°	905.5	927.3	968.0	1004.7	1012.8
47.5°	848.5	873.0	916.4	953.1	966.6
50°	791.5	817.3	863.5	901.5	909.6
52.5°	734.5	761.6	810.5	851.2	855.3
55°	674.7	704.6	756.2	795.6	803.7
57.5°	620.4	646.2	701.9	742.6	752.1
60°	560.7	589.2	649.0	687.0	699.2
62.5°	503.7	533.6	596.0	634.0	644.9
65°	443.9	477.9	539.0	583.8	594.6
67.5°	392.4	424.9	490.1	533.6	544.4
70°	332.6	369.3	438.5	483.3	494.2
72.5°	281.0	319.0	388.3	431.7	448.0
75°	225.4	268.8	338.1	384.2	395.1
77.5°	171.1	221.3	291.9	327.2	327.2
80°	122.2	175.1	240.3	256.6	259.3
82.5°	80.1	131.7	177.9	176.5	176.5
85°	46.2	85.5	105.9	103.2	103.2
87.5°	17.6	35.3	38.0	38.0	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)