

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: P261143

Luminaire Tested: **24CZ-LD5-40-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261143  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-40-S-UNV-L82765-W2A1-U-4000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4147.0 lumens  
Efficiency: N/A  
Efficacy: 144.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

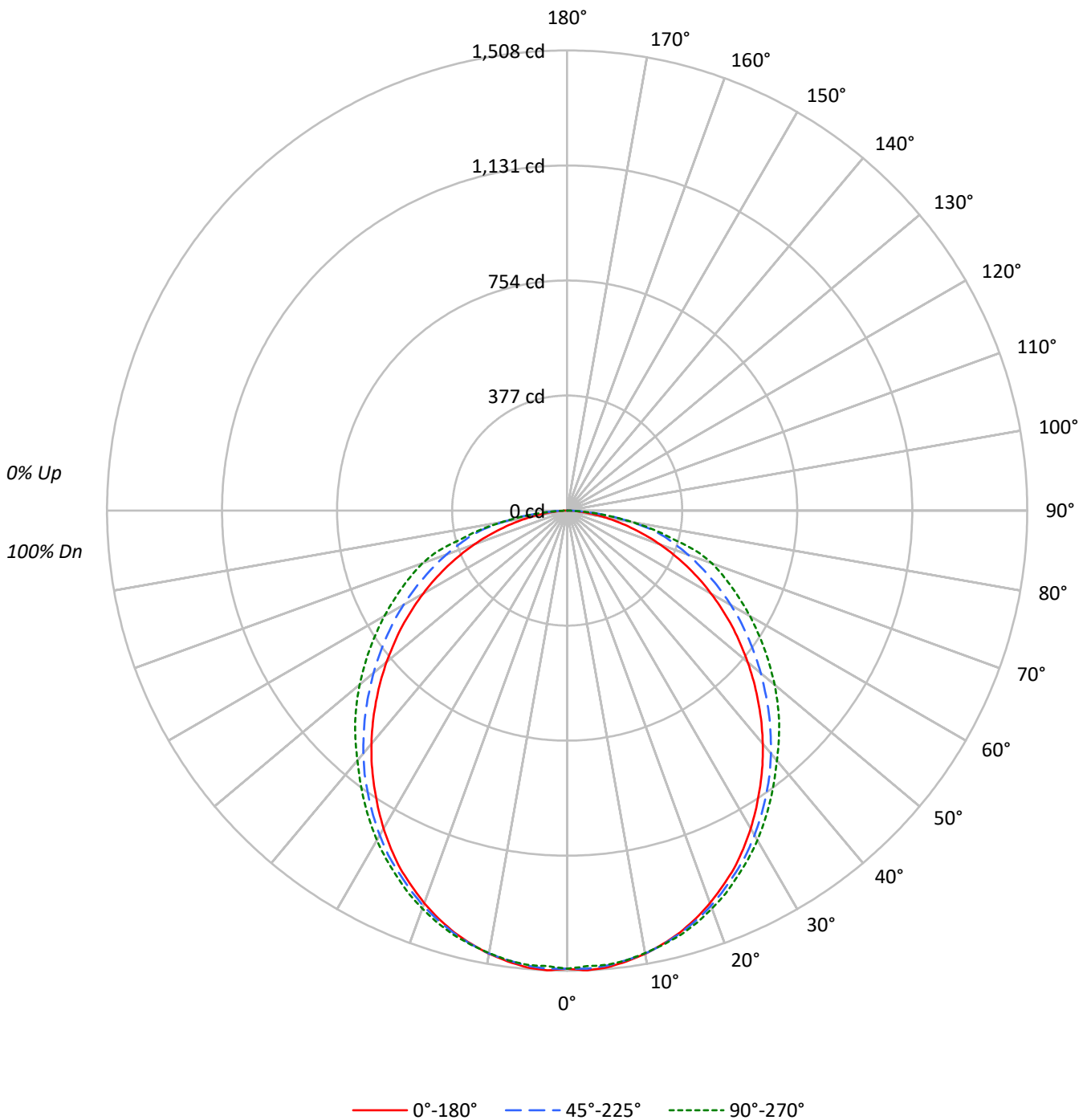
Input Watts (W): 28.644  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2020	2020	2020
5°	2030	2022	2018
10°	2015	2013	2012
15°	1993	1997	2005
20°	1960	1974	1988
25°	1921	1942	1962
30°	1869	1908	1938
35°	1811	1868	1906
40°	1752	1825	1878
45°	1686	1778	1870
50°	1617	1733	1857
55°	1547	1696	1852
60°	1467	1667	1860
65°	1379	1647	1898
70°	1270	1656	1987
75°	1126	1714	1851
80°	941	1625	1668
85°	702	1300	1193



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.9	3.4
10°-20°	403.7	9.7
20°-30°	601.6	14.5
30°-40°	708.2	17.1
40°-50°	719.7	17.4
50°-60°	647.0	15.6
60°-70°	511.2	12.3
70°-80°	324.3	7.8
80°-90°	89.5	2.2
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°	1147.2	27.7
0°-40°	1855.4	44.7
0°-60°	3222.1	77.7
0°-90°	4147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4147.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1501	1501	1501	1501	1501	
5°	1503	1490	1497	1494	1494	142
15°	1431	1424	1434	1438	1439	403
25°	1294	1293	1308	1316	1322	595
35°	1102	1109	1137	1149	1160	690
45°	886	898	934	962	982	684
55°	660	676	723	770	789	589
65°	433	455	517	574	596	429
75°	217	254	330	359	356	231
85°	46	79	84	77	77	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1501.3	1501.3	1501.3	1501.3	1501.3
2.5°	1508.2	1497.2	1502.7	1499.9	1494.4
5°	1502.7	1490.3	1497.2	1494.4	1494.4
7.5°	1490.3	1480.6	1486.1	1484.7	1486.1
10°	1475.1	1465.4	1473.7	1473.7	1472.3
12.5°	1454.4	1446.1	1455.8	1455.8	1457.1
15°	1430.9	1424.0	1433.7	1437.8	1439.2
17.5°	1401.9	1395.0	1407.5	1411.6	1415.7
20°	1368.8	1366.1	1378.5	1382.6	1388.1
22.5°	1331.6	1331.6	1344.0	1349.5	1357.8
25°	1294.3	1292.9	1308.1	1316.4	1321.9
27.5°	1250.2	1251.5	1270.9	1279.1	1286.0
30°	1203.2	1206.0	1228.1	1237.7	1247.4
32.5°	1153.6	1159.1	1183.9	1195.0	1204.6
35°	1102.5	1109.4	1137.0	1149.4	1160.5
37.5°	1051.5	1061.1	1090.1	1102.5	1114.9
40°	997.6	1005.9	1039.0	1054.2	1069.4
42.5°	942.4	953.5	986.6	1008.7	1026.6
45°	885.9	898.3	934.2	961.8	982.5
47.5°	829.3	845.9	880.4	917.6	935.5
50°	772.7	789.3	827.9	869.3	887.3
52.5°	714.8	731.3	775.5	818.3	837.6
55°	659.6	676.1	723.0	770.0	789.3
57.5°	601.6	619.6	672.0	720.3	739.6
60°	545.0	563.0	619.6	670.6	691.3
62.5°	489.9	509.2	568.5	622.3	643.0
65°	433.3	455.4	517.4	574.0	596.1
67.5°	378.1	402.9	467.8	527.1	550.6
70°	322.9	351.9	420.9	481.6	505.0
72.5°	269.1	300.8	373.9	434.7	447.1
75°	216.6	253.9	329.8	358.8	356.0
77.5°	167.0	208.4	280.1	285.6	293.9
80°	121.4	167.0	209.7	220.8	215.3
82.5°	80.0	125.6	150.4	144.9	143.5
85°	45.5	78.7	84.2	77.3	77.3
87.5°	19.3	31.7	27.6	20.7	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)