

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: P276375

Luminaire Tested: **24CZ2-40-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276375  
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: 24CZ2-40-S-UNV-L83050-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4265.0 lumens  
Efficiency: N/A  
Efficacy: 133.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

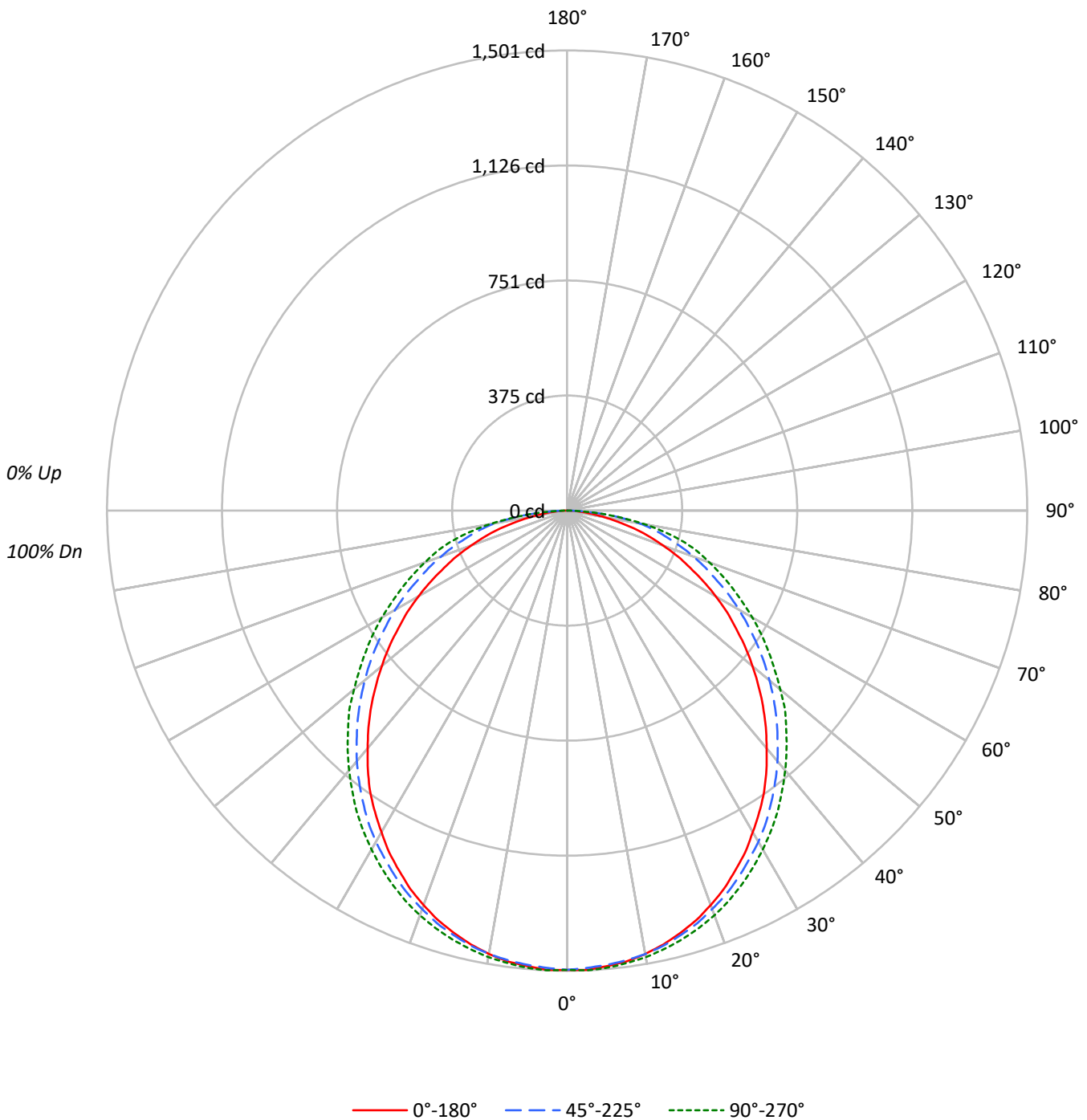
Input Watts (W): 31.901139  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2016	2016	2016
5°	2014	2009	2022
10°	2006	2006	2021
15°	1987	1997	2017
20°	1961	1981	2011
25°	1925	1961	1999
30°	1882	1938	1983
35°	1840	1907	1967
40°	1777	1875	1944
45°	1719	1838	1923
50°	1653	1804	1900
55°	1579	1770	1881
60°	1506	1743	1877
65°	1410	1712	1889
70°	1306	1721	1940
75°	1169	1753	2049
80°	945	1858	2005
85°	712	1632	1590



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.8	3.3
10°-20°	405.3	9.5
20°-30°	609.3	14.3
30°-40°	725.7	17.0
40°-50°	742.8	17.4
50°-60°	668.7	15.7
60°-70°	525.1	12.3
70°-80°	340.8	8.0
80°-90°	105.4	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°	1156.4	27.1
0°-40°	1882.2	44.1
0°-60°	3293.6	77.2
0°-90°	4265.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4265.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1498	1498	1498	1498	1498	
5°	1492	1494	1488	1496	1497	142
15°	1426	1431	1433	1446	1448	402
25°	1296	1307	1321	1342	1347	597
35°	1120	1134	1161	1189	1198	699
45°	904	925	966	1002	1011	697
55°	673	703	755	794	802	604
65°	443	477	538	582	593	441
75°	225	268	337	383	394	238
85°	46	85	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°	1498.3	1498.3	1498.3	1498.3	1498.3
2.5°	1499.7	1499.7	1492.9	1499.7	1501.0
5°	1491.5	1494.3	1487.5	1495.6	1497.0
7.5°	1483.4	1483.4	1479.4	1487.5	1488.8
10°	1468.5	1469.9	1468.5	1478.0	1479.4
12.5°	1449.6	1452.3	1453.6	1463.1	1464.5
15°	1426.5	1430.6	1433.3	1445.5	1448.2
17.5°	1400.8	1404.8	1411.6	1425.2	1427.9
20°	1369.6	1375.0	1383.2	1400.8	1404.8
22.5°	1335.8	1341.2	1354.7	1371.0	1377.8
25°	1296.5	1307.3	1320.9	1342.5	1346.6
27.5°	1257.2	1266.7	1284.3	1307.3	1312.7
30°	1211.1	1226.0	1247.7	1270.7	1276.1
32.5°	1166.4	1181.3	1207.1	1231.4	1238.2
35°	1120.4	1133.9	1161.0	1189.4	1197.6
37.5°	1067.5	1085.1	1114.9	1143.4	1151.5
40°	1012.0	1033.7	1067.5	1097.3	1106.8
42.5°	959.1	982.2	1016.0	1048.6	1059.4
45°	903.6	925.3	965.9	1002.5	1010.6
47.5°	846.7	871.1	914.4	951.0	964.6
50°	789.8	815.5	861.6	899.5	907.7
52.5°	732.9	760.0	808.8	849.4	853.5
55°	673.3	703.1	754.6	793.9	802.0
57.5°	619.1	644.8	700.4	741.0	750.5
60°	559.5	587.9	647.6	685.5	697.7
62.5°	502.6	532.4	594.7	632.7	643.5
65°	443.0	476.9	537.8	582.5	593.4
67.5°	391.5	424.0	489.1	532.4	543.2
70°	331.9	368.5	437.6	482.3	493.1
72.5°	280.4	318.4	387.5	430.8	447.1
75°	224.9	268.2	337.3	383.4	394.2
77.5°	170.7	220.8	291.3	326.5	326.5
80°	121.9	174.8	239.8	256.0	258.8
82.5°	79.9	131.4	177.5	176.1	176.1
85°	46.1	85.3	105.7	103.0	103.0
87.5°	17.6	35.2	37.9	37.9	36.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)