

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: P275956

Luminaire Tested: **24CZ2-40-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275956  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40-UNV-L83050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4059.0 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

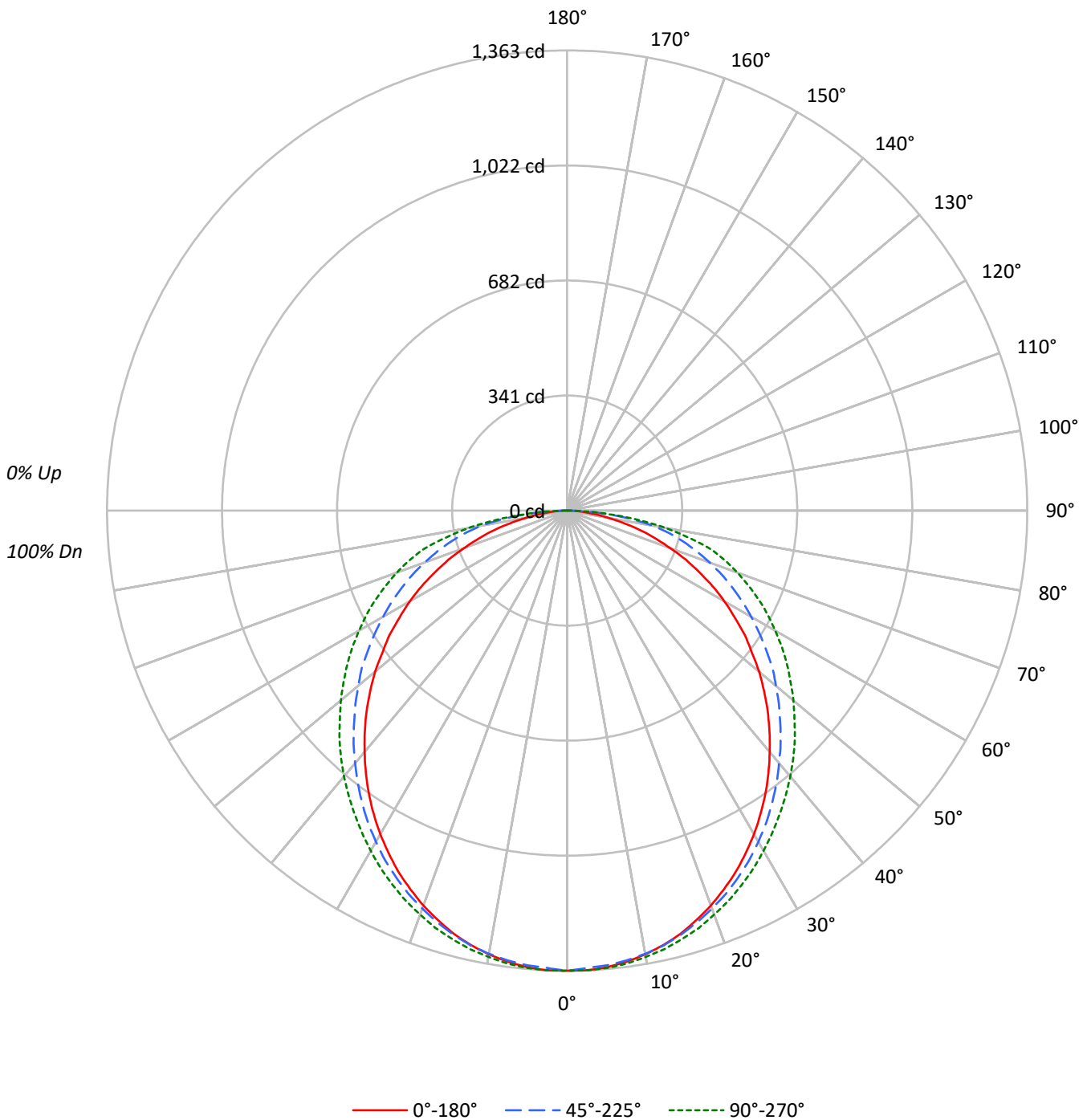
Input Watts (W): 31.899  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P275956

CATALOG NUMBER: 24CZ2-40-UNV-L83050-W2A1-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P275956

CATALOG NUMBER: 24CZ2-40-UNV-L83050-W2A1-U-5000K

**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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1834	1834	1834
5°	1833	1826	1837
10°	1823	1821	1834
15°	1808	1812	1830
20°	1782	1796	1823
25°	1754	1780	1816
30°	1720	1759	1808
35°	1682	1738	1802
40°	1639	1715	1806
45°	1598	1699	1815
50°	1554	1690	1832
55°	1506	1687	1865
60°	1447	1695	1914
65°	1372	1721	1997
70°	1274	1764	2110
75°	1162	1852	2289
80°	955	1994	2288
85°	732	1840	1965



TEST NUMBER: P275956

CATALOG NUMBER: 24CZ2-40-UNV-L83050-W2A1-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.9	3.2
10°-20°	368.0	9.1
20°-30°	553.7	13.6
30°-40°	663.6	16.3
40°-50°	691.5	17.0
50°-60°	643.4	15.9
60°-70°	529.9	13.1
70°-80°	360.9	8.9
80°-90°	119.1	2.9
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°	1050.6	25.9
0°-40°	1714.2	42.2
0°-60°	3049.1	75.1
0°-90°	4059.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4059.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1357	1357	1352	1359	1360	129
15°	1298	1299	1300	1313	1314	366
25°	1181	1187	1199	1219	1223	544
35°	1024	1036	1058	1086	1097	640
45°	840	858	893	937	954	648
55°	642	664	719	776	795	572
65°	431	467	540	604	627	428
75°	224	274	356	420	440	236
85°	47	92	119	127	127	59
90°	0	0	0	0	0	



TEST NUMBER: P275956

CATALOG NUMBER: 24CZ2-40-UNV-L83050-W2A1-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1362.8	1362.8	1362.8	1362.8	1362.8
2.5°	1362.8	1362.8	1356.0	1362.8	1362.8
5°	1357.4	1357.4	1352.0	1358.7	1360.1
7.5°	1347.9	1349.2	1343.8	1352.0	1353.3
10°	1334.3	1335.7	1333.0	1341.1	1342.5
12.5°	1318.1	1319.4	1319.4	1328.9	1330.3
15°	1297.8	1299.1	1300.5	1312.7	1314.0
17.5°	1272.0	1276.1	1278.8	1293.7	1296.4
20°	1244.9	1249.0	1254.4	1270.7	1273.4
22.5°	1213.8	1219.2	1228.7	1246.3	1250.4
25°	1181.3	1186.7	1198.9	1219.2	1223.3
27.5°	1144.7	1152.8	1167.7	1189.4	1194.8
30°	1106.8	1114.9	1132.5	1155.5	1163.7
32.5°	1066.1	1077.0	1097.3	1123.0	1131.1
35°	1024.1	1036.3	1058.0	1086.4	1097.3
37.5°	979.4	993.0	1018.7	1049.9	1063.4
40°	933.4	949.6	976.7	1013.3	1028.2
42.5°	887.3	902.2	936.1	975.4	991.6
45°	839.9	857.5	892.7	937.4	953.7
47.5°	791.1	808.7	850.7	898.1	913.0
50°	742.4	760.0	807.4	857.5	875.1
52.5°	689.5	712.6	766.7	816.9	834.5
55°	642.1	663.8	719.3	776.2	795.2
57.5°	587.9	613.7	674.6	734.2	754.5
60°	537.8	564.9	629.9	690.9	711.2
62.5°	486.3	516.1	585.2	647.5	670.6
65°	430.8	467.4	540.5	604.2	627.2
67.5°	380.7	418.6	495.8	560.8	581.2
70°	323.8	369.8	448.4	513.4	536.4
72.5°	275.0	321.1	403.7	467.4	490.4
75°	223.5	273.6	356.3	419.9	440.3
77.5°	172.0	227.6	310.2	359.0	365.8
80°	123.3	181.5	257.4	285.8	295.3
82.5°	86.7	139.5	189.7	208.6	214.0
85°	47.4	92.1	119.2	127.3	127.3
87.5°	20.3	39.3	47.4	48.8	50.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)