

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: P276324

Luminaire Tested: **24CZ2-40HE-S-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276324
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: 24CZ2-40HE-S-UNV-L83050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4251.0 lumens
Efficiency: N/A
Efficacy: 147.0 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

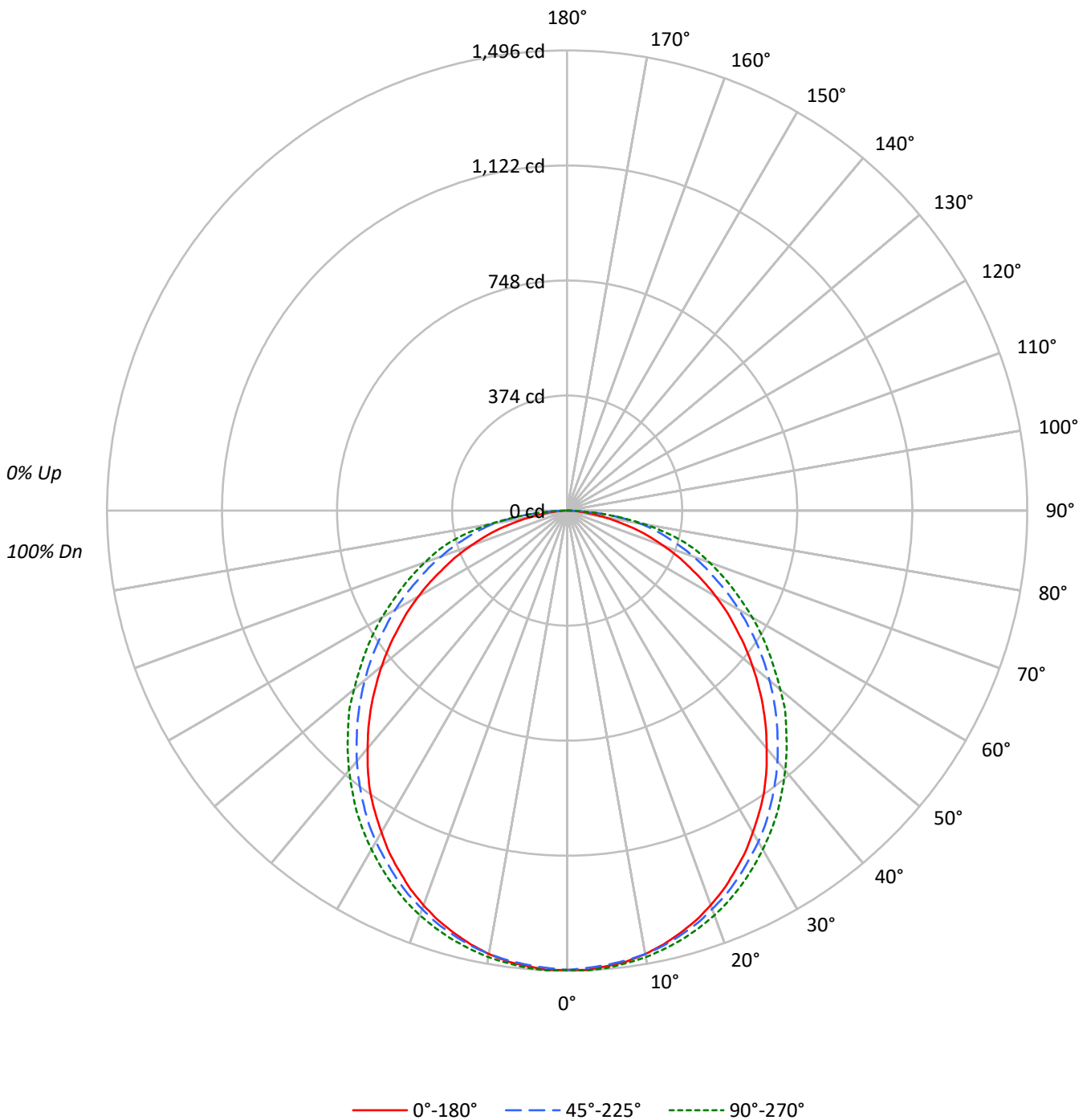
Input Watts (W): 28.922256
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276324

CATALOG NUMBER: 24CZ2-40HE-S-UNV-L83050-W2A1-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P276324

CATALOG NUMBER: 24CZ2-40HE-S-UNV-L83050-W2A1-U-4000K

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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2009	2009	2009
5°	2008	2002	2015
10°	2000	2000	2015
15°	1981	1990	2011
20°	1955	1974	2005
25°	1918	1954	1993
30°	1875	1932	1976
35°	1834	1901	1961
40°	1772	1869	1938
45°	1714	1832	1917
50°	1648	1798	1894
55°	1574	1764	1875
60°	1501	1737	1871
65°	1406	1707	1883
70°	1301	1716	1934
75°	1165	1748	2043
80°	941	1852	1998
85°	709	1626	1584



TEST NUMBER: P276324

CATALOG NUMBER: 24CZ2-40HE-S-UNV-L83050-W2A1-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.4	3.3
10°-20°	404.0	9.5
20°-30°	607.3	14.3
30°-40°	723.4	17.0
40°-50°	740.3	17.4
50°-60°	666.5	15.7
60°-70°	523.4	12.3
70°-80°	339.7	8.0
80°-90°	105.1	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°	1152.6	27.1
0°-40°	1876.0	44.1
0°-60°	3282.8	77.2
0°-90°	4251.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4251.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1493	1493	1493	1493	1493	
5°	1487	1489	1483	1491	1492	141
15°	1422	1426	1429	1441	1443	401
25°	1292	1303	1316	1338	1342	595
35°	1117	1130	1157	1186	1194	697
45°	901	922	963	999	1007	694
55°	671	701	752	791	799	602
65°	442	475	536	581	591	440
75°	224	267	336	382	393	237
85°	46	85	105	103	103	55
90°	0	0	0	0	0	



TEST NUMBER: P276324

CATALOG NUMBER: 24CZ2-40HE-S-UNV-L83050-W2A1-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1493.4	1493.4	1493.4	1493.4	1493.4
2.5°	1494.8	1494.8	1488.0	1494.8	1496.1
5°	1486.7	1489.4	1482.6	1490.7	1492.1
7.5°	1478.6	1478.6	1474.5	1482.6	1484.0
10°	1463.7	1465.0	1463.7	1473.1	1474.5
12.5°	1444.8	1447.5	1448.8	1458.3	1459.6
15°	1421.8	1425.9	1428.6	1440.7	1443.4
17.5°	1396.2	1400.2	1407.0	1420.5	1423.2
20°	1365.1	1370.5	1378.6	1396.2	1400.2
22.5°	1331.4	1336.8	1350.3	1366.5	1373.2
25°	1292.2	1303.0	1316.5	1338.1	1342.2
27.5°	1253.1	1262.5	1280.1	1303.0	1308.4
30°	1207.1	1222.0	1243.6	1266.6	1272.0
32.5°	1162.6	1177.4	1203.1	1227.4	1234.2
35°	1116.7	1130.2	1157.2	1185.5	1193.6
37.5°	1064.0	1081.6	1111.3	1139.6	1147.7
40°	1008.7	1030.3	1064.0	1093.7	1103.2
42.5°	956.0	978.9	1012.7	1045.1	1055.9
45°	900.6	922.2	962.7	999.2	1007.3
47.5°	843.9	868.2	911.4	947.9	961.4
50°	787.2	812.9	858.8	896.6	904.7
52.5°	730.5	757.5	806.1	846.6	850.7
55°	671.1	700.8	752.1	791.3	799.4
57.5°	617.1	642.7	698.1	738.6	748.1
60°	557.7	586.0	645.4	683.2	695.4
62.5°	501.0	530.7	592.8	630.6	641.4
65°	441.5	475.3	536.1	580.6	591.4
67.5°	390.2	422.6	487.4	530.7	541.5
70°	330.8	367.3	436.1	480.7	491.5
72.5°	279.5	317.3	386.2	429.4	445.6
75°	224.1	267.4	336.2	382.1	392.9
77.5°	170.1	220.1	290.3	325.4	325.4
80°	121.5	174.2	239.0	255.2	257.9
82.5°	79.7	131.0	176.9	175.5	175.5
85°	45.9	85.1	105.3	102.6	102.6
87.5°	17.6	35.1	37.8	37.8	36.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)