

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: P272072

Luminaire Tested: **24CZ2-40HE-UNV-L950-CD1-U**

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: P272072
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: 24CZ2-40HE-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3654.0 lumens
Efficiency: N/A
Efficacy: 119.4 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

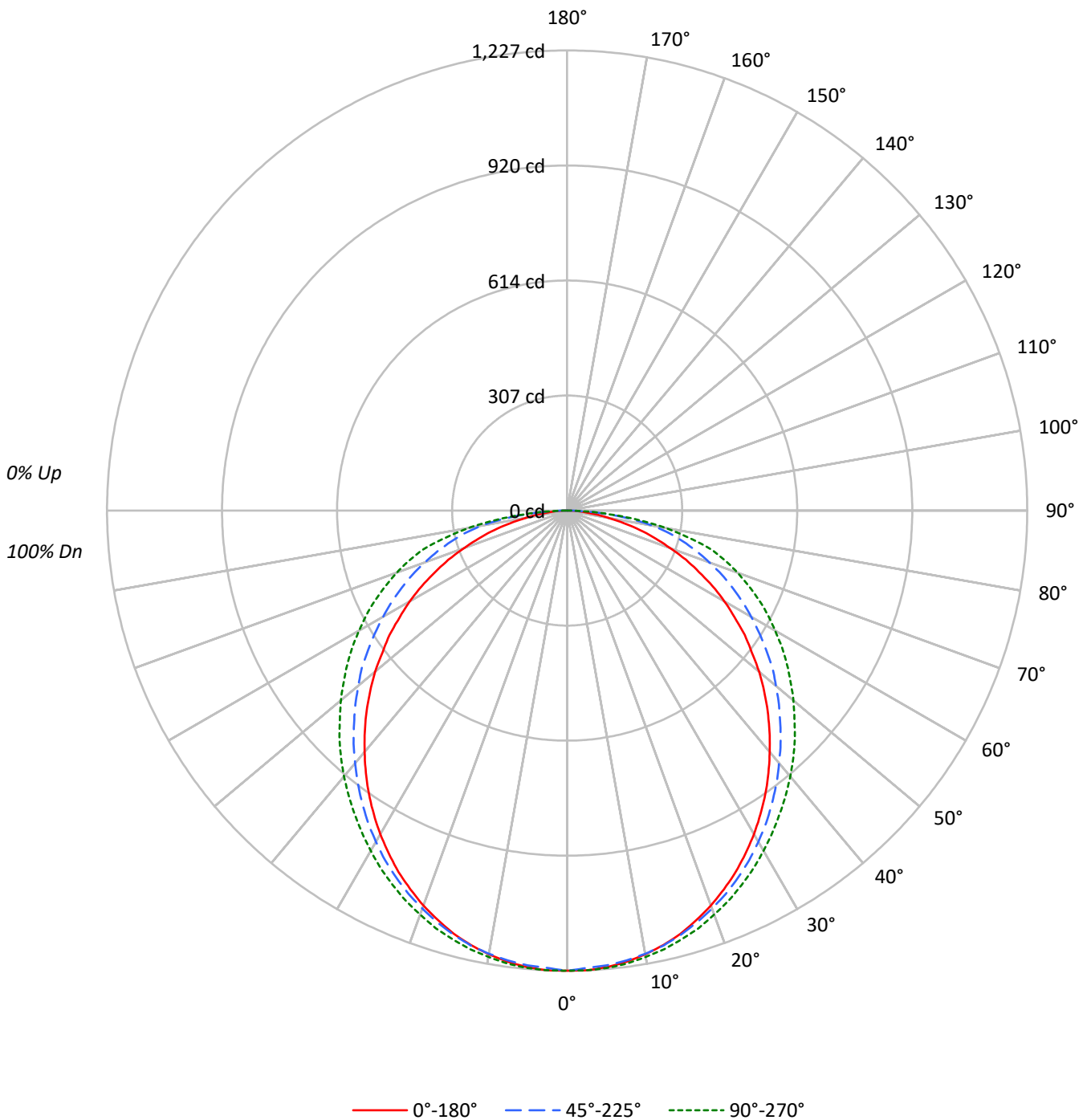
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P272072

CATALOG NUMBER: 24CZ2-40HE-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P272072

CATALOG NUMBER: 24CZ2-40HE-UNV-L950-CD1-U

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	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°	1651	1651	1651
5°	1650	1644	1654
10°	1641	1639	1651
15°	1627	1631	1648
20°	1605	1617	1641
25°	1579	1602	1635
30°	1548	1584	1628
35°	1514	1564	1623
40°	1476	1544	1626
45°	1439	1529	1634
50°	1399	1521	1649
55°	1356	1519	1679
60°	1303	1526	1723
65°	1235	1549	1798
70°	1147	1588	1900
75°	1046	1667	2060
80°	860	1795	2060
85°	659	1656	1769



TEST NUMBER: P272072

CATALOG NUMBER: 24CZ2-40HE-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.0	3.2
10°-20°	331.2	9.1
20°-30°	498.5	13.6
30°-40°	597.4	16.3
40°-50°	622.5	17.0
50°-60°	579.2	15.9
60°-70°	477.0	13.1
70°-80°	324.9	8.9
80°-90°	107.3	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°	945.8	25.9
0°-40°	1543.1	42.2
0°-60°	2744.8	75.1
0°-90°	3654.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3654.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1227	1227	1227	1227	1227	
5°	1222	1222	1217	1223	1224	116
15°	1168	1170	1171	1182	1183	329
25°	1063	1068	1079	1098	1101	490
35°	922	933	952	978	988	576
45°	756	772	804	844	858	583
55°	578	598	648	699	716	515
65°	388	421	487	544	565	385
75°	201	246	321	378	396	212
85°	43	83	107	115	115	53
90°	0	0	0	0	0	



TEST NUMBER: P272072

CATALOG NUMBER: 24CZ2-40HE-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1226.8	1226.8	1226.8	1226.8	1226.8
2.5°	1226.8	1226.8	1220.7	1226.8	1226.8
5°	1221.9	1221.9	1217.1	1223.2	1224.4
7.5°	1213.4	1214.6	1209.7	1217.1	1218.3
10°	1201.2	1202.4	1200.0	1207.3	1208.5
12.5°	1186.6	1187.8	1187.8	1196.3	1197.5
15°	1168.3	1169.5	1170.7	1181.7	1182.9
17.5°	1145.1	1148.8	1151.2	1164.6	1167.1
20°	1120.7	1124.4	1129.3	1143.9	1146.3
22.5°	1092.7	1097.6	1106.1	1121.9	1125.6
25°	1063.4	1068.3	1079.3	1097.6	1101.2
27.5°	1030.5	1037.8	1051.2	1070.7	1075.6
30°	996.3	1003.6	1019.5	1040.2	1047.6
32.5°	959.7	969.5	987.8	1011.0	1018.3
35°	921.9	932.9	952.4	978.0	987.8
37.5°	881.7	893.9	917.1	945.1	957.3
40°	840.2	854.9	879.3	912.2	925.6
42.5°	798.8	812.2	842.7	878.0	892.7
45°	756.1	771.9	803.7	843.9	858.5
47.5°	712.2	728.0	765.8	808.5	821.9
50°	668.3	684.1	726.8	771.9	787.8
52.5°	620.7	641.5	690.2	735.4	751.2
55°	578.0	597.6	647.6	698.8	715.8
57.5°	529.3	552.4	607.3	661.0	679.3
60°	484.1	508.5	567.1	621.9	640.2
62.5°	437.8	464.6	526.8	582.9	603.7
65°	387.8	420.7	486.6	543.9	564.6
67.5°	342.7	376.8	446.3	504.9	523.2
70°	291.5	332.9	403.7	462.2	482.9
72.5°	247.6	289.0	363.4	420.7	441.5
75°	201.2	246.3	320.7	378.0	396.3
77.5°	154.9	204.9	279.3	323.2	329.3
80°	111.0	163.4	231.7	257.3	265.9
82.5°	78.0	125.6	170.7	187.8	192.7
85°	42.7	82.9	107.3	114.6	114.6
87.5°	18.3	35.4	42.7	43.9	45.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)