

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: P272148

Luminaire Tested: **24CZ2-40-S-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: P272148
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-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

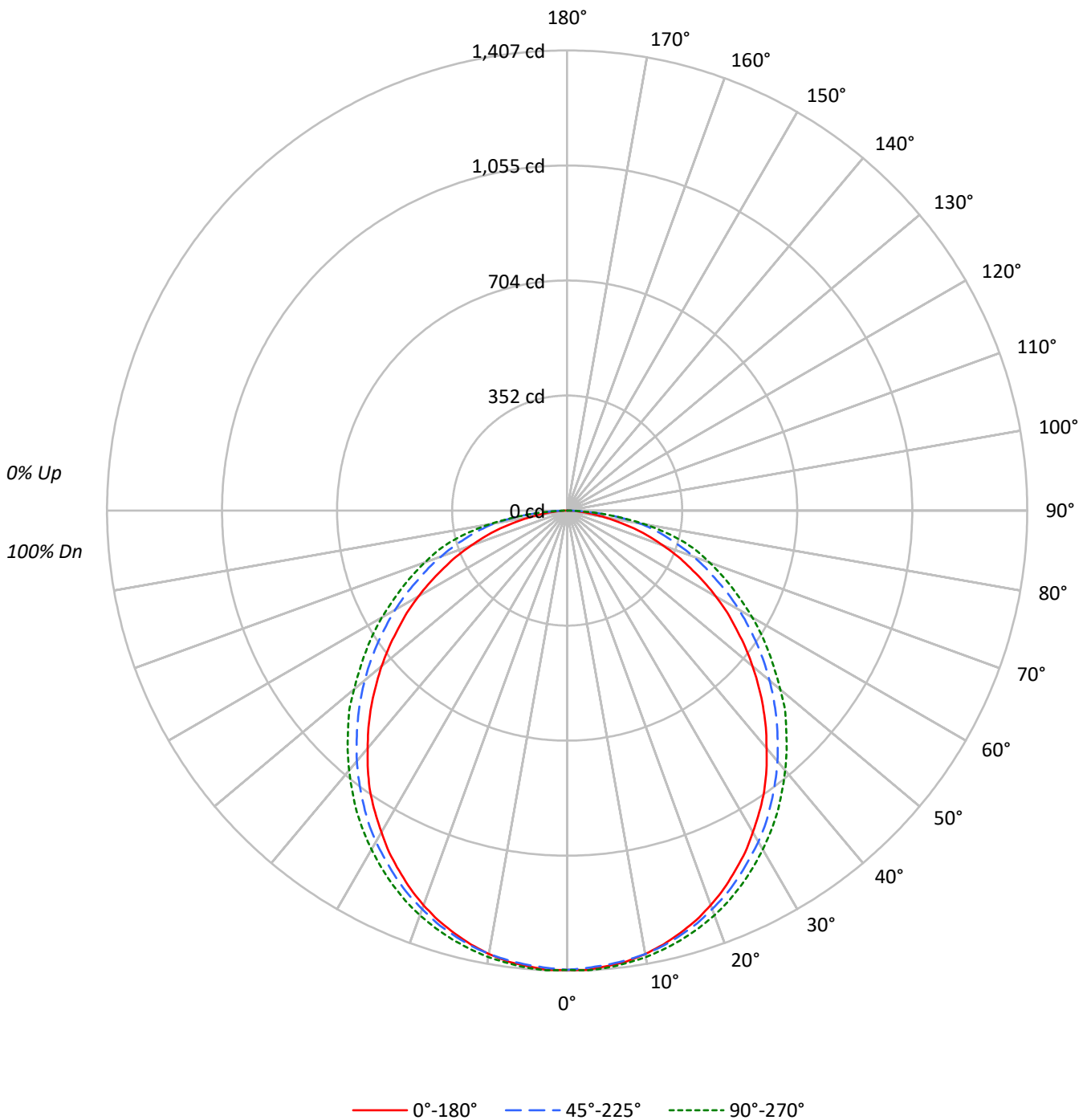
Lumens per Lamp: N/A
Luminaire Lumens: 3998.0 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.2
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: P272148
CATALOG NUMBER: 24CZ2-40-S-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P272148

CATALOG NUMBER: 24CZ2-40-S-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	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°	1890	1890	1890
5°	1888	1883	1895
10°	1881	1881	1895
15°	1863	1872	1891
20°	1838	1857	1886
25°	1804	1838	1874
30°	1764	1817	1859
35°	1725	1788	1844
40°	1666	1758	1822
45°	1612	1723	1803
50°	1550	1691	1781
55°	1480	1659	1764
60°	1411	1633	1760
65°	1322	1605	1771
70°	1224	1614	1818
75°	1096	1644	1921
80°	886	1742	1880
85°	667	1530	1490



TEST NUMBER: P272148

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.0	3.3
10°-20°	379.9	9.5
20°-30°	571.1	14.3
30°-40°	680.3	17.0
40°-50°	696.3	17.4
50°-60°	626.8	15.7
60°-70°	492.3	12.3
70°-80°	319.5	8.0
80°-90°	98.8	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°	1084.0	27.1
0°-40°	1764.3	44.1
0°-60°	3087.4	77.2
0°-90°	3998.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3998.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1404	1404	1404	1404	1404	
5°	1398	1401	1394	1402	1403	133
15°	1337	1341	1344	1355	1358	377
25°	1215	1226	1238	1258	1262	560
35°	1050	1063	1088	1115	1123	655
45°	847	867	905	940	947	653
55°	631	659	707	744	752	566
65°	415	447	504	546	556	413
75°	211	251	316	359	370	223
85°	43	80	99	96	96	52
90°	0	0	0	0	0	



TEST NUMBER: P272148

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1404.5	1404.5	1404.5	1404.5	1404.5
2.5°	1405.8	1405.8	1399.4	1405.8	1407.1
5°	1398.2	1400.7	1394.4	1402.0	1403.3
7.5°	1390.6	1390.6	1386.7	1394.4	1395.6
10°	1376.6	1377.9	1376.6	1385.5	1386.7
12.5°	1358.8	1361.3	1362.6	1371.5	1372.8
15°	1337.2	1341.0	1343.6	1355.0	1357.5
17.5°	1313.1	1316.9	1323.2	1335.9	1338.5
20°	1283.9	1289.0	1296.6	1313.1	1316.9
22.5°	1252.1	1257.2	1269.9	1285.2	1291.5
25°	1215.3	1225.5	1238.2	1258.5	1262.3
27.5°	1178.5	1187.4	1203.9	1225.5	1230.5
30°	1135.3	1149.3	1169.6	1191.2	1196.3
32.5°	1093.4	1107.4	1131.5	1154.4	1160.7
35°	1050.2	1062.9	1088.3	1115.0	1122.6
37.5°	1000.7	1017.2	1045.1	1071.8	1079.4
40°	948.6	968.9	1000.7	1028.6	1037.5
42.5°	899.1	920.7	952.4	982.9	993.1
45°	847.0	867.4	905.4	939.7	947.4
47.5°	793.7	816.6	857.2	891.5	904.2
50°	740.4	764.5	807.7	843.2	850.8
52.5°	687.0	712.4	758.1	796.2	800.0
55°	631.1	659.1	707.3	744.2	751.8
57.5°	580.4	604.5	656.5	694.6	703.5
60°	524.5	551.1	607.0	642.6	654.0
62.5°	471.1	499.1	557.5	593.0	603.2
65°	415.3	447.0	504.2	546.1	556.2
67.5°	367.0	397.5	458.4	499.1	509.2
70°	311.1	345.4	410.2	452.1	462.2
72.5°	262.9	298.4	363.2	403.8	419.1
75°	210.8	251.4	316.2	359.4	369.5
77.5°	160.0	207.0	273.0	306.0	306.0
80°	114.3	163.8	224.8	240.0	242.6
82.5°	74.9	123.2	166.4	165.1	165.1
85°	43.2	80.0	99.1	96.5	96.5
87.5°	16.5	33.0	35.6	35.6	34.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)