

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: P272156

Luminaire Tested: **24CZ2-45-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: P272156
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: 24CZ2-45-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

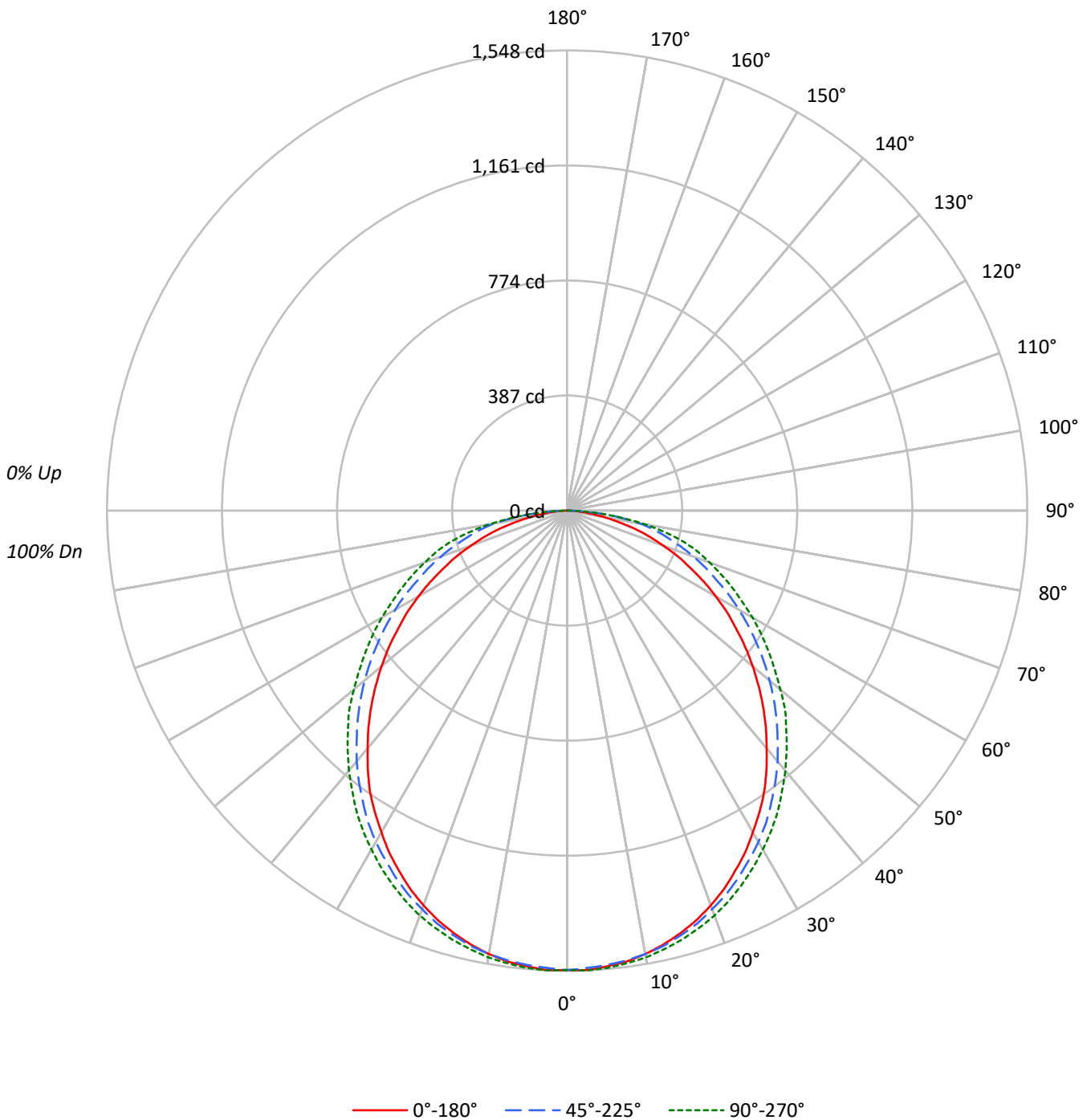
Lumens per Lamp: N/A
Luminaire Lumens: 4400.0 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 42.9
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



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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°	2080	2080	2080
5°	2078	2073	2086
10°	2070	2070	2085
15°	2050	2060	2081
20°	2023	2043	2075
25°	1986	2023	2062
30°	1941	2000	2045
35°	1898	1967	2029
40°	1834	1934	2005
45°	1774	1896	1984
50°	1706	1861	1960
55°	1629	1826	1941
60°	1553	1798	1937
65°	1455	1766	1949
70°	1347	1776	2001
75°	1206	1809	2114
80°	975	1917	2068
85°	733	1683	1639



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.3	3.3
10°-20°	418.1	9.5
20°-30°	628.6	14.3
30°-40°	748.7	17.0
40°-50°	766.3	17.4
50°-60°	689.9	15.7
60°-70°	541.8	12.3
70°-80°	351.6	8.0
80°-90°	108.7	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°	1193.0	27.1
0°-40°	1941.7	44.1
0°-60°	3397.9	77.2
0°-90°	4400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4400.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1546	1546	1546	1546	1546	
5°	1539	1542	1535	1543	1544	146
15°	1472	1476	1479	1491	1494	415
25°	1338	1349	1363	1385	1389	616
35°	1156	1170	1198	1227	1236	721
45°	932	955	996	1034	1043	719
55°	695	725	778	819	827	623
65°	457	492	555	601	612	455
75°	232	277	348	396	407	246
85°	48	88	109	106	106	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1545.7	1545.7	1545.7	1545.7	1545.7
2.5°	1547.1	1547.1	1540.2	1547.1	1548.5
5°	1538.8	1541.6	1534.6	1543.0	1544.4
7.5°	1530.4	1530.4	1526.2	1534.6	1536.0
10°	1515.0	1516.4	1515.0	1524.8	1526.2
12.5°	1495.4	1498.2	1499.6	1509.4	1510.8
15°	1471.7	1475.9	1478.7	1491.2	1494.0
17.5°	1445.1	1449.3	1456.3	1470.3	1473.1
20°	1413.0	1418.6	1427.0	1445.1	1449.3
22.5°	1378.0	1383.6	1397.6	1414.4	1421.4
25°	1337.5	1348.7	1362.7	1385.0	1389.2
27.5°	1297.0	1306.8	1324.9	1348.7	1354.3
30°	1249.5	1264.8	1287.2	1311.0	1316.5
32.5°	1203.3	1218.7	1245.3	1270.4	1277.4
35°	1155.8	1169.8	1197.7	1227.1	1235.5
37.5°	1101.3	1119.5	1150.2	1179.6	1188.0
40°	1044.0	1066.4	1101.3	1132.1	1141.8
42.5°	989.5	1013.3	1048.2	1081.7	1092.9
45°	932.2	954.6	996.5	1034.2	1042.6
47.5°	873.5	898.7	943.4	981.1	995.1
50°	814.8	841.4	888.9	928.0	936.4
52.5°	756.1	784.1	834.4	876.3	880.5
55°	694.6	725.4	778.5	819.0	827.4
57.5°	638.7	665.3	722.6	764.5	774.3
60°	577.2	606.6	668.1	707.2	719.8
62.5°	518.5	549.3	613.5	652.7	663.9
65°	457.0	492.0	554.8	601.0	612.2
67.5°	403.9	437.4	504.5	549.3	560.4
70°	342.4	380.1	451.4	497.5	508.7
72.5°	289.3	328.4	399.7	444.4	461.2
75°	232.0	276.7	348.0	395.5	406.7
77.5°	176.1	227.8	300.5	336.8	336.8
80°	125.8	180.3	247.4	264.1	266.9
82.5°	82.5	135.6	183.1	181.7	181.7
85°	47.5	88.0	109.0	106.2	106.2
87.5°	18.2	36.3	39.1	39.1	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)