

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: P272155

Luminaire Tested: **24CZ2-45-S-UNV-L940-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: P272155
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-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

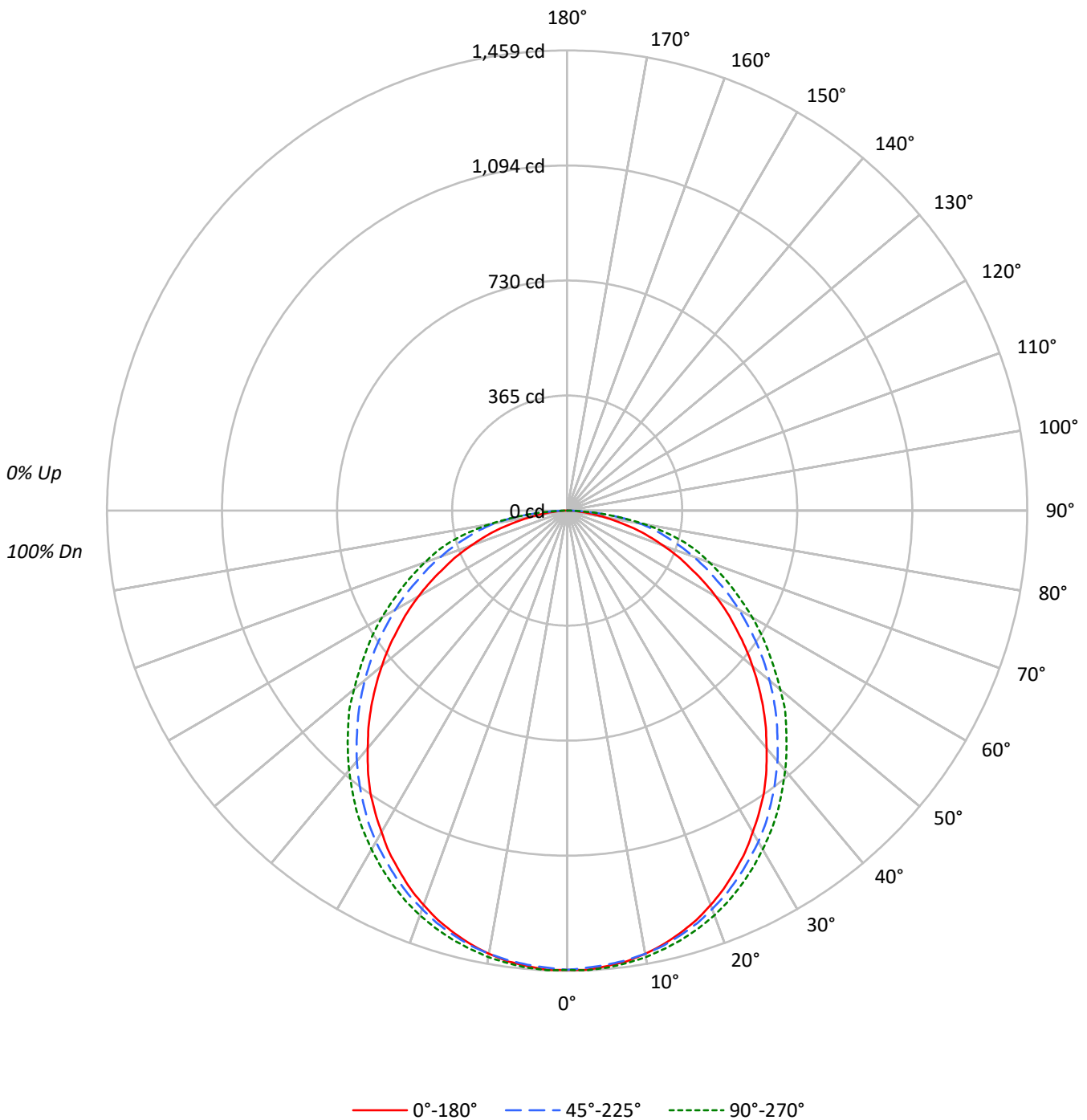
Lumens per Lamp: N/A
Luminaire Lumens: 4145.0 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1959	1959	1959
5°	1958	1952	1965
10°	1950	1950	1964
15°	1931	1940	1961
20°	1906	1925	1955
25°	1871	1906	1943
30°	1829	1884	1927
35°	1788	1853	1912
40°	1727	1822	1889
45°	1671	1786	1869
50°	1607	1753	1846
55°	1535	1720	1828
60°	1463	1693	1825
65°	1371	1664	1836
70°	1269	1673	1885
75°	1136	1704	1992
80°	918	1805	1949
85°	692	1585	1545



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.9	3.3
10°-20°	393.9	9.5
20°-30°	592.1	14.3
30°-40°	705.3	17.0
40°-50°	721.9	17.4
50°-60°	649.9	15.7
60°-70°	510.4	12.3
70°-80°	331.2	8.0
80°-90°	102.4	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°	1123.9	27.1
0°-40°	1829.2	44.1
0°-60°	3201.0	77.2
0°-90°	4145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4145.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1456	1456	1456	1456	1456	
5°	1450	1452	1446	1454	1455	138
15°	1386	1390	1393	1405	1408	391
25°	1260	1270	1284	1305	1309	580
35°	1089	1102	1128	1156	1164	679
45°	878	899	939	974	982	677
55°	654	683	733	772	779	587
65°	430	463	523	566	577	429
75°	219	261	328	373	383	231
85°	45	83	103	100	100	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1456.2	1456.2	1456.2	1456.2	1456.2
2.5°	1457.5	1457.5	1450.9	1457.5	1458.8
5°	1449.6	1452.2	1445.6	1453.5	1454.8
7.5°	1441.7	1441.7	1437.7	1445.6	1446.9
10°	1427.2	1428.5	1427.2	1436.4	1437.7
12.5°	1408.8	1411.4	1412.7	1421.9	1423.3
15°	1386.4	1390.3	1393.0	1404.8	1407.5
17.5°	1361.4	1365.3	1371.9	1385.1	1387.7
20°	1331.1	1336.4	1344.3	1361.4	1365.3
22.5°	1298.2	1303.4	1316.6	1332.4	1339.0
25°	1260.0	1270.5	1283.7	1304.8	1308.7
27.5°	1221.8	1231.0	1248.1	1270.5	1275.8
30°	1177.0	1191.5	1212.6	1235.0	1240.2
32.5°	1133.6	1148.1	1173.1	1196.8	1203.4
35°	1088.8	1102.0	1128.3	1156.0	1163.9
37.5°	1037.5	1054.6	1083.6	1111.2	1119.1
40°	983.5	1004.6	1037.5	1066.5	1075.7
42.5°	932.2	954.5	987.5	1019.1	1029.6
45°	878.2	899.2	938.7	974.3	982.2
47.5°	822.9	846.6	888.7	924.3	937.4
50°	767.6	792.6	837.4	874.2	882.1
52.5°	712.3	738.6	786.0	825.5	829.5
55°	654.4	683.3	733.3	771.5	779.4
57.5°	601.7	626.7	680.7	720.2	729.4
60°	543.8	571.4	629.3	666.2	678.1
62.5°	488.5	517.4	578.0	614.9	625.4
65°	430.5	463.4	522.7	566.1	576.7
67.5°	380.5	412.1	475.3	517.4	528.0
70°	322.6	358.1	425.3	468.7	479.2
72.5°	272.5	309.4	376.5	418.7	434.5
75°	218.6	260.7	327.8	372.6	383.1
77.5°	165.9	214.6	283.1	317.3	317.3
80°	118.5	169.8	233.0	248.8	251.5
82.5°	77.7	127.7	172.5	171.2	171.2
85°	44.8	82.9	102.7	100.1	100.1
87.5°	17.1	34.2	36.9	36.9	35.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)