

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: P272154

Luminaire Tested: **24CZ2-45-S-UNV-L935-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: P272154
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-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

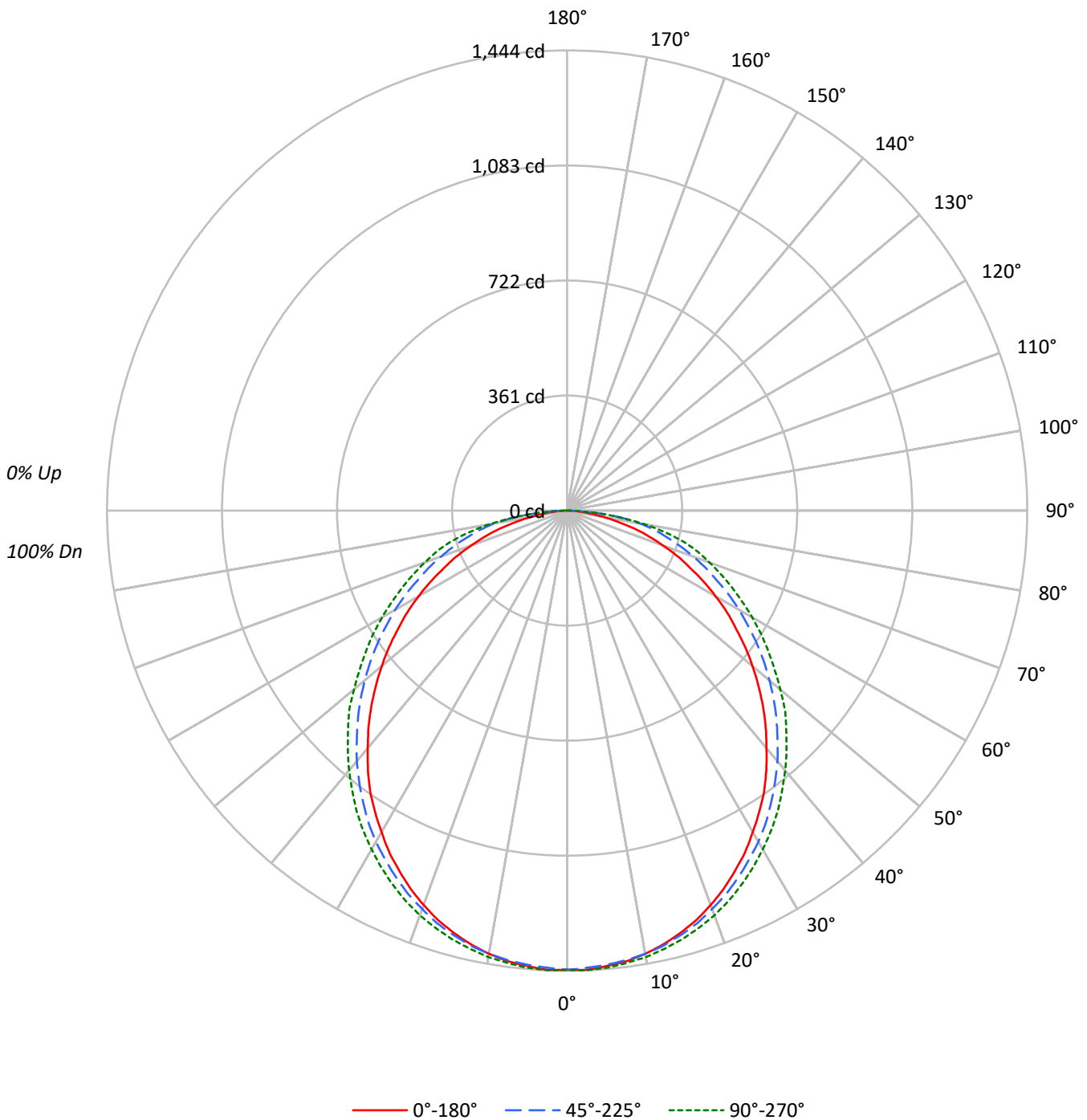
Lumens per Lamp: N/A
Luminaire Lumens: 4102.0 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1939	1939	1939
5°	1937	1932	1945
10°	1930	1930	1944
15°	1911	1920	1940
20°	1886	1905	1935
25°	1851	1886	1923
30°	1810	1864	1907
35°	1770	1834	1892
40°	1710	1803	1870
45°	1654	1768	1850
50°	1590	1735	1827
55°	1519	1702	1809
60°	1448	1676	1806
65°	1357	1647	1817
70°	1256	1656	1866
75°	1124	1686	1971
80°	909	1787	1929
85°	684	1568	1528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	3.3
10°-20°	389.8	9.5
20°-30°	586.0	14.3
30°-40°	698.0	17.0
40°-50°	714.4	17.4
50°-60°	643.1	15.7
60°-70°	505.1	12.3
70°-80°	327.8	8.0
80°-90°	101.4	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°	1112.2	27.1
0°-40°	1810.2	44.1
0°-60°	3167.7	77.2
0°-90°	4102.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4102.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1434	1437	1431	1438	1440	136
15°	1372	1376	1378	1390	1393	387
25°	1247	1257	1270	1291	1295	574
35°	1078	1091	1117	1144	1152	672
45°	869	890	929	964	972	670
55°	648	676	726	764	771	581
65°	426	459	517	560	571	424
75°	216	258	324	369	379	229
85°	44	82	102	99	99	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1441.1	1441.1	1441.1	1441.1	1441.1
2.5°	1442.4	1442.4	1435.8	1442.4	1443.7
5°	1434.5	1437.2	1430.6	1438.5	1439.8
7.5°	1426.7	1426.7	1422.8	1430.6	1431.9
10°	1412.4	1413.7	1412.4	1421.5	1422.8
12.5°	1394.2	1396.8	1398.1	1407.2	1408.5
15°	1372.0	1375.9	1378.5	1390.2	1392.9
17.5°	1347.2	1351.2	1357.7	1370.7	1373.3
20°	1317.3	1322.5	1330.3	1347.2	1351.2
22.5°	1284.7	1289.9	1302.9	1318.6	1325.1
25°	1246.9	1257.3	1270.4	1291.2	1295.1
27.5°	1209.1	1218.3	1235.2	1257.3	1262.6
30°	1164.8	1179.2	1200.0	1222.2	1227.4
32.5°	1121.8	1136.2	1160.9	1184.4	1190.9
35°	1077.5	1090.6	1116.6	1144.0	1151.8
37.5°	1026.7	1043.7	1072.3	1099.7	1107.5
40°	973.3	994.1	1026.7	1055.4	1064.5
42.5°	922.5	944.6	977.2	1008.5	1018.9
45°	869.1	889.9	929.0	964.2	972.0
47.5°	814.3	837.8	879.5	914.7	927.7
50°	759.6	784.4	828.7	865.2	873.0
52.5°	704.9	731.0	777.9	816.9	820.9
55°	647.6	676.2	725.7	763.5	771.3
57.5°	595.4	620.2	673.6	712.7	721.8
60°	538.1	565.5	622.8	659.3	671.0
62.5°	483.4	512.1	572.0	608.5	618.9
65°	426.1	458.6	517.3	560.3	570.7
67.5°	376.6	407.8	470.4	512.1	522.5
70°	319.2	354.4	420.9	463.8	474.3
72.5°	269.7	306.2	372.6	414.3	430.0
75°	216.3	258.0	324.4	368.7	379.2
77.5°	164.2	212.4	280.1	314.0	314.0
80°	117.3	168.1	230.6	246.3	248.9
82.5°	76.9	126.4	170.7	169.4	169.4
85°	44.3	82.1	101.6	99.0	99.0
87.5°	16.9	33.9	36.5	36.5	35.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)