

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: P272092

Luminaire Tested: **24CZ2-50-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: P272092
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

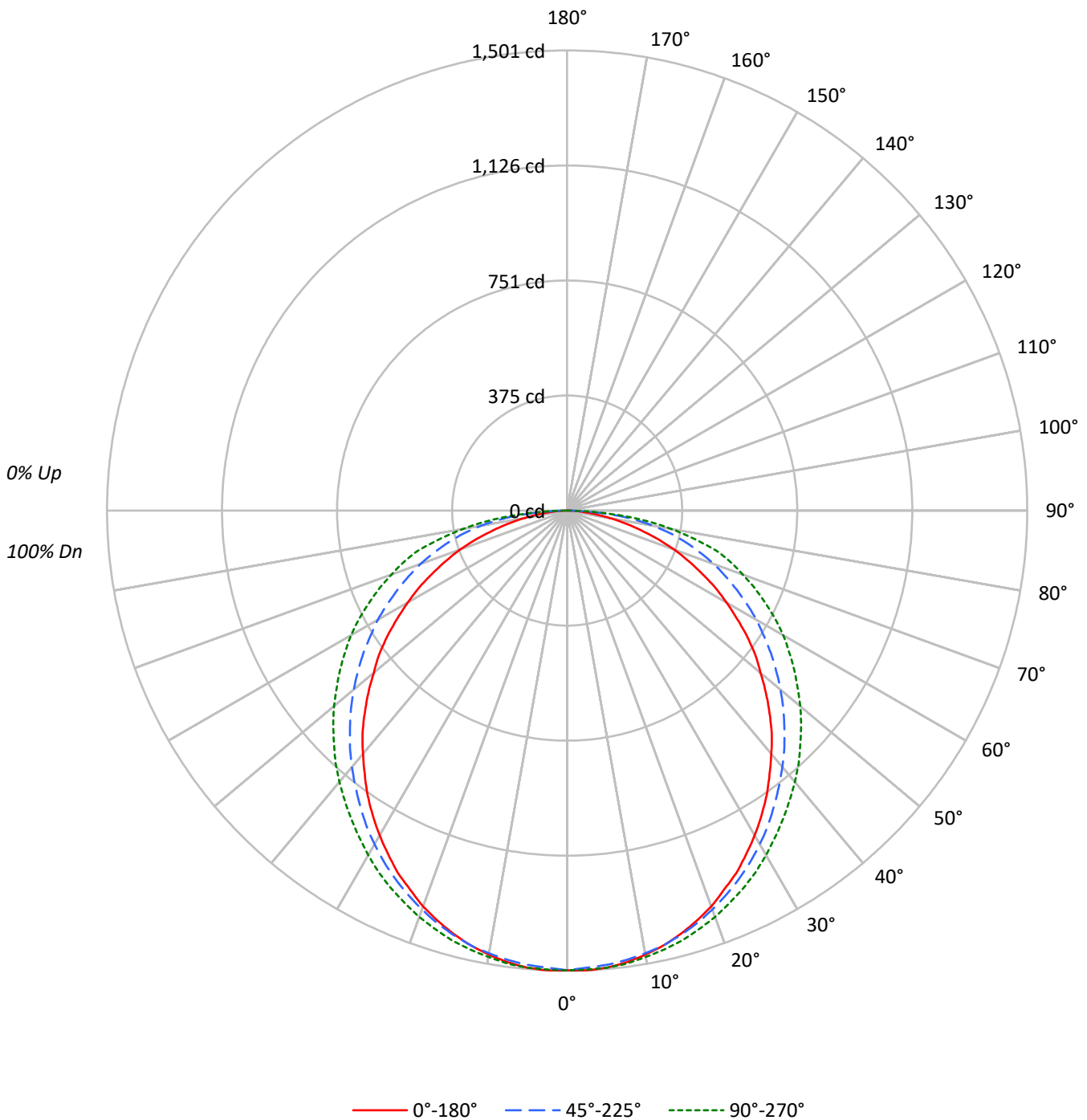
Lumens per Lamp: N/A
Luminaire Lumens: 4547.0 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.6
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



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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	98	94	105	100	96	92	96	92	89		92	89	87		88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2018	2018	2018
5°	2021	2009	2021
10°	2010	2003	2020
15°	1992	1996	2022
20°	1968	1983	2020
25°	1937	1969	2018
30°	1901	1952	2016
35°	1863	1933	2017
40°	1820	1918	2030
45°	1777	1906	2047
50°	1724	1901	2078
55°	1681	1904	2120
60°	1616	1920	2192
65°	1542	1940	2272
70°	1460	2000	2398
75°	1302	2086	2620
80°	1110	2209	2677
85°	792	2189	2561



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.9	3.1
10°-20°	405.8	8.9
20°-30°	612.9	13.5
30°-40°	738.7	16.2
40°-50°	775.5	17.1
50°-60°	725.5	16.0
60°-70°	599.2	13.2
70°-80°	408.3	9.0
80°-90°	139.2	3.1
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°	1160.6	25.5
0°-40°	1899.3	41.8
0°-60°	3400.3	74.8
0°-90°	4547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4547.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1500	1500	1500	1500	1500	
5°	1496	1495	1488	1496	1496	142
15°	1430	1432	1433	1448	1451	403
25°	1305	1311	1326	1352	1359	600
35°	1134	1146	1177	1216	1228	709
45°	934	953	1002	1056	1076	720
55°	717	745	812	878	904	640
65°	484	525	610	686	714	480
75°	250	308	401	477	504	267
85°	51	101	142	160	166	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1499.6	1499.6	1499.6	1499.6	1499.6
2.5°	1501.1	1499.6	1492.0	1499.6	1498.1
5°	1496.5	1495.0	1487.5	1496.5	1496.5
7.5°	1486.0	1486.0	1478.4	1489.0	1490.5
10°	1470.9	1470.9	1466.4	1478.4	1478.4
12.5°	1452.8	1452.8	1452.8	1464.9	1466.4
15°	1430.2	1431.7	1433.2	1448.3	1451.3
17.5°	1403.0	1406.0	1410.6	1428.7	1431.7
20°	1374.3	1377.4	1384.9	1406.0	1410.6
22.5°	1338.1	1345.7	1356.2	1380.4	1384.9
25°	1305.0	1311.0	1326.1	1351.7	1359.3
27.5°	1264.2	1273.3	1292.9	1320.0	1330.6
30°	1223.5	1232.5	1256.7	1288.4	1297.4
32.5°	1179.7	1193.3	1219.0	1252.1	1262.7
35°	1134.5	1146.5	1176.7	1215.9	1228.0
37.5°	1084.7	1101.3	1134.5	1176.7	1191.8
40°	1036.4	1054.5	1092.2	1137.5	1155.6
42.5°	988.1	1006.2	1048.5	1099.8	1117.9
45°	933.8	953.4	1001.7	1056.0	1075.6
47.5°	879.5	903.7	956.5	1013.8	1034.9
50°	823.7	850.9	908.2	968.5	992.7
52.5°	773.9	799.6	859.9	924.8	947.4
55°	716.6	745.3	811.6	878.0	903.7
57.5°	657.8	689.4	760.3	832.8	858.4
60°	600.4	635.1	713.6	786.0	814.7
62.5°	544.6	579.3	660.8	736.2	764.9
65°	484.3	525.0	609.5	686.4	713.6
67.5°	426.9	470.7	559.7	635.1	662.3
70°	371.1	413.4	508.4	582.3	609.5
72.5°	310.8	359.0	454.1	531.0	559.7
75°	250.4	307.8	401.3	476.7	503.9
77.5°	194.6	253.4	347.0	408.8	422.4
80°	143.3	203.7	285.1	328.9	345.5
82.5°	92.0	152.4	217.2	248.9	262.5
85°	51.3	101.1	141.8	159.9	165.9
87.5°	21.1	43.7	57.3	64.9	64.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)