

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: P272084

Luminaire Tested: **24CZ2-45-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: P272084
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: 24CZ2-45-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: 4187.0 lumens
Efficiency: N/A
Efficacy: 97.6 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

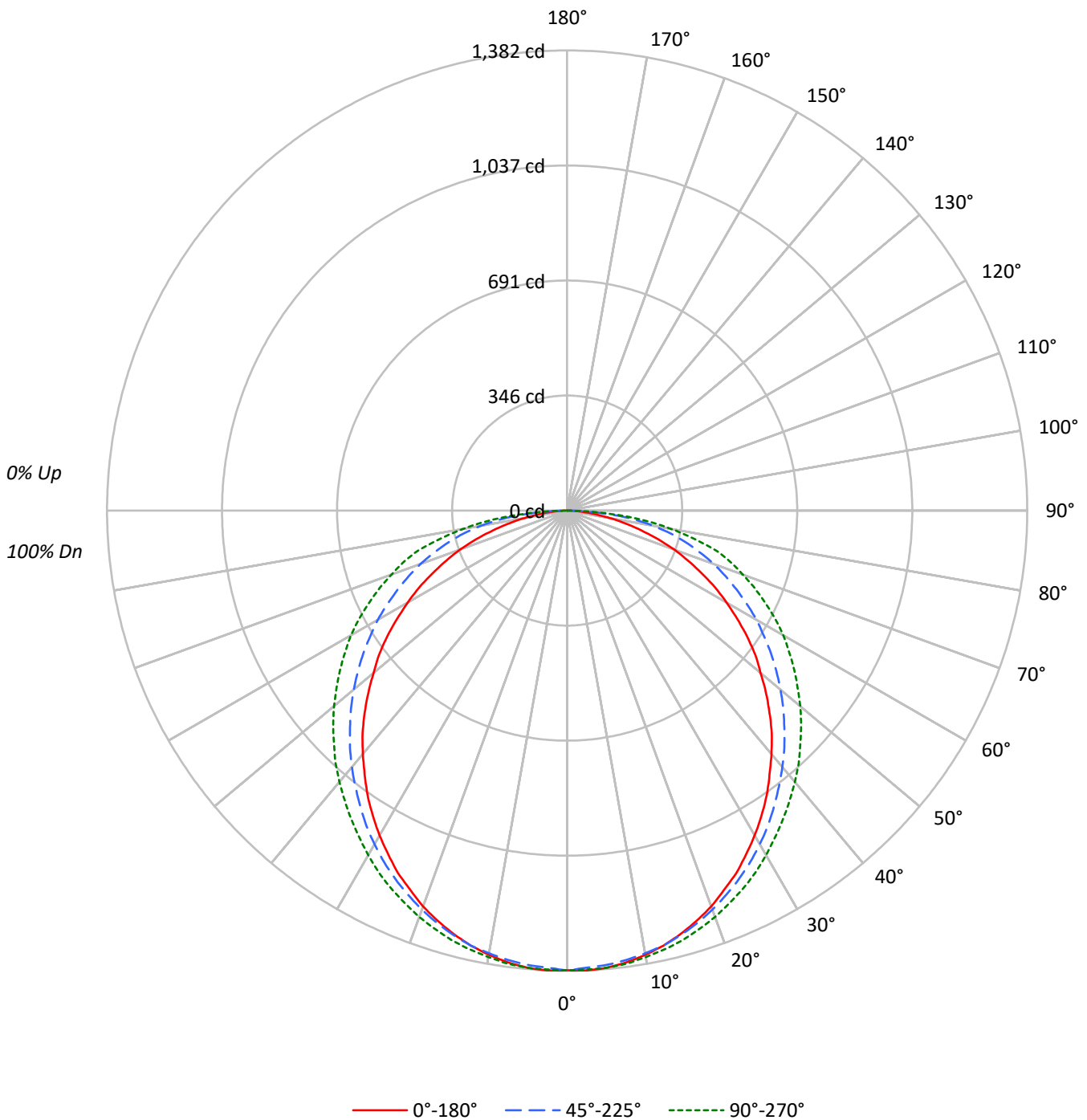
Input Watts (W): 42.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1858	1858	1858
5°	1861	1850	1861
10°	1850	1845	1860
15°	1834	1838	1862
20°	1812	1826	1860
25°	1784	1813	1858
30°	1750	1798	1856
35°	1716	1780	1857
40°	1676	1767	1869
45°	1636	1755	1885
50°	1588	1751	1913
55°	1548	1753	1952
60°	1488	1768	2019
65°	1420	1787	2092
70°	1344	1842	2208
75°	1199	1921	2412
80°	1023	2035	2465
85°	729	2016	2359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.7	3.1
10°-20°	373.7	8.9
20°-30°	564.4	13.5
30°-40°	680.2	16.2
40°-50°	714.1	17.1
50°-60°	668.1	16.0
60°-70°	551.7	13.2
70°-80°	376.0	9.0
80°-90°	128.2	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°	1068.7	25.5
0°-40°	1748.9	41.8
0°-60°	3131.1	74.8
0°-90°	4187.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4187.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1381	1381	1381	1381	1381	
5°	1378	1377	1370	1378	1378	131
15°	1317	1318	1320	1334	1336	371
25°	1202	1207	1221	1245	1252	553
35°	1045	1056	1084	1120	1131	653
45°	860	878	922	972	990	663
55°	660	686	747	808	832	589
65°	446	483	561	632	657	442
75°	231	283	370	439	464	246
85°	47	93	131	147	153	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1380.8	1380.8	1380.8	1380.8	1380.8
2.5°	1382.2	1380.8	1373.9	1380.8	1379.4
5°	1378.1	1376.7	1369.7	1378.1	1378.1
7.5°	1368.3	1368.3	1361.4	1371.1	1372.5
10°	1354.4	1354.4	1350.3	1361.4	1361.4
12.5°	1337.8	1337.8	1337.8	1348.9	1350.3
15°	1316.9	1318.3	1319.7	1333.6	1336.4
17.5°	1291.9	1294.7	1298.9	1315.5	1318.3
20°	1265.5	1268.3	1275.3	1294.7	1298.9
22.5°	1232.2	1239.1	1248.9	1271.1	1275.3
25°	1201.6	1207.2	1221.1	1244.7	1251.6
27.5°	1164.1	1172.5	1190.5	1215.5	1225.2
30°	1126.6	1135.0	1157.2	1186.4	1194.7
32.5°	1086.3	1098.8	1122.5	1153.0	1162.7
35°	1044.7	1055.8	1083.6	1119.7	1130.8
37.5°	998.8	1014.1	1044.7	1083.6	1097.4
40°	954.4	971.0	1005.8	1047.4	1064.1
42.5°	909.9	926.6	965.5	1012.7	1029.4
45°	859.9	878.0	922.4	972.4	990.5
47.5°	809.9	832.1	880.7	933.5	953.0
50°	758.5	783.5	836.3	891.8	914.1
52.5°	712.6	736.3	791.8	851.6	872.4
55°	659.9	686.3	747.4	808.5	832.1
57.5°	605.7	634.9	700.1	766.8	790.4
60°	552.9	584.8	657.1	723.8	750.2
62.5°	501.5	533.4	608.5	677.9	704.3
65°	445.9	483.4	561.2	632.1	657.1
67.5°	393.1	433.4	515.4	584.8	609.8
70°	341.7	380.6	468.2	536.2	561.2
72.5°	286.2	330.6	418.1	489.0	515.4
75°	230.6	283.4	369.5	439.0	464.0
77.5°	179.2	233.4	319.5	376.5	389.0
80°	132.0	187.5	262.6	302.8	318.1
82.5°	84.7	140.3	200.0	229.2	241.7
85°	47.2	93.1	130.6	147.3	152.8
87.5°	19.4	40.3	52.8	59.7	59.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)