

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: P272149

Luminaire Tested: **24CZ2-45HE-S-UNV-L930-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: P272149
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: 24CZ2-45HE-S-UNV-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

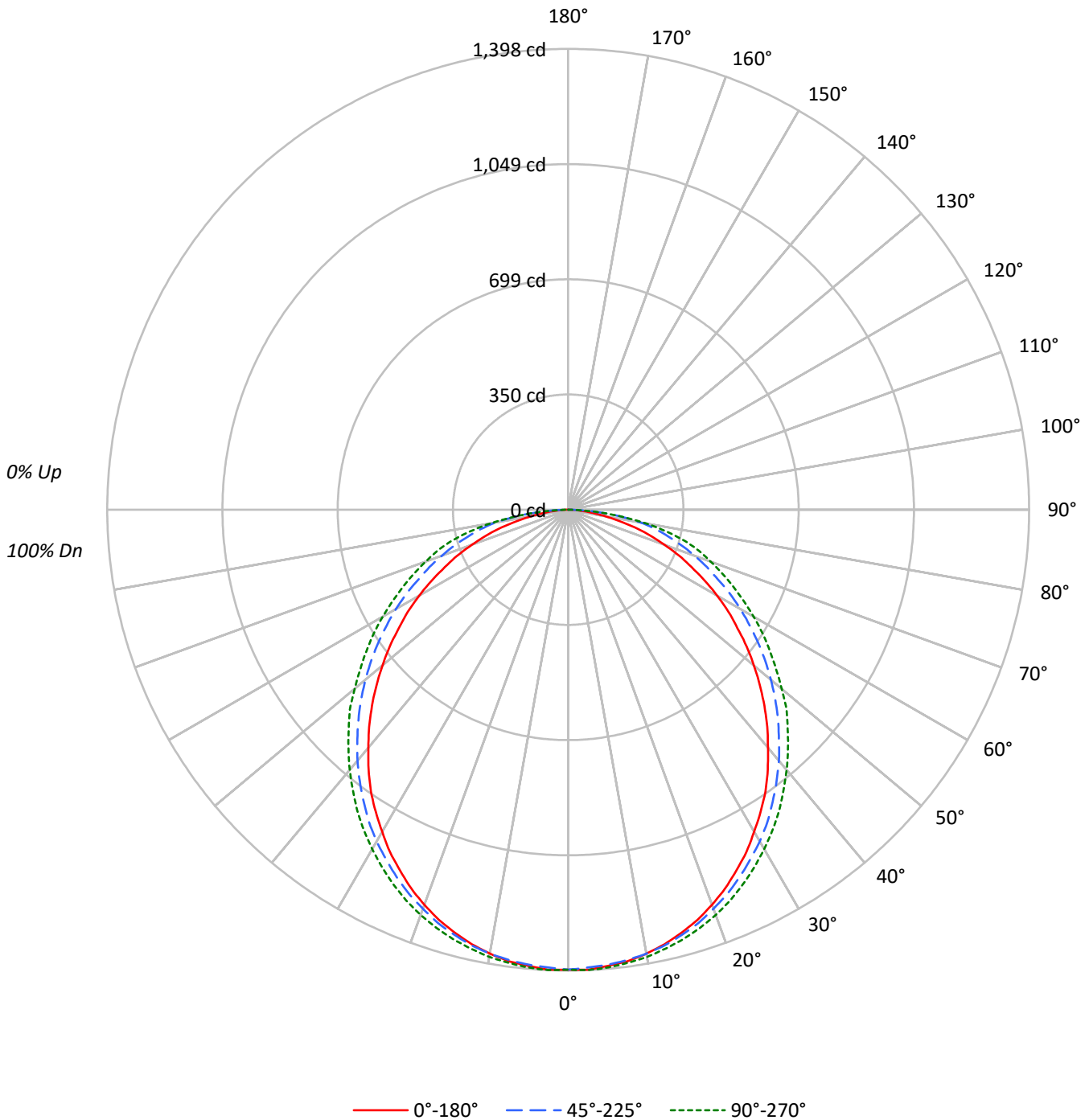
Lumens per Lamp: N/A
Luminaire Lumens: 3972.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.3
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°	1877	1877	1877
5°	1876	1871	1883
10°	1868	1868	1882
15°	1851	1859	1879
20°	1826	1844	1873
25°	1792	1826	1862
30°	1752	1805	1846
35°	1714	1776	1832
40°	1655	1746	1811
45°	1601	1712	1791
50°	1540	1680	1769
55°	1471	1648	1752
60°	1402	1623	1749
65°	1314	1595	1759
70°	1216	1603	1806
75°	1089	1633	1908
80°	879	1730	1867
85°	662	1519	1480



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.1	3.3
10°-20°	377.5	9.5
20°-30°	567.4	14.3
30°-40°	675.9	17.0
40°-50°	691.7	17.4
50°-60°	622.8	15.7
60°-70°	489.1	12.3
70°-80°	317.4	8.0
80°-90°	98.2	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°	1077.0	27.1
0°-40°	1752.8	44.1
0°-60°	3067.3	77.2
0°-90°	3972.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3972.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1395	1395	1395	1395	1395	
5°	1389	1392	1385	1393	1394	132
15°	1328	1332	1335	1346	1349	375
25°	1207	1218	1230	1250	1254	556
35°	1043	1056	1081	1108	1115	651
45°	842	862	900	934	941	649
55°	627	655	703	739	747	562
65°	413	444	501	542	553	411
75°	209	250	314	357	367	222
85°	43	80	98	96	96	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1395.4	1395.4	1395.4	1395.4	1395.4
2.5°	1396.7	1396.7	1390.3	1396.7	1397.9
5°	1389.1	1391.6	1385.3	1392.9	1394.1
7.5°	1381.5	1381.5	1377.7	1385.3	1386.6
10°	1367.6	1368.9	1367.6	1376.5	1377.7
12.5°	1350.0	1352.5	1353.8	1362.6	1363.8
15°	1328.5	1332.3	1334.8	1346.2	1348.7
17.5°	1304.6	1308.3	1314.6	1327.3	1329.8
20°	1275.5	1280.6	1288.1	1304.6	1308.3
22.5°	1244.0	1249.0	1261.7	1276.8	1283.1
25°	1207.4	1217.5	1230.1	1250.3	1254.1
27.5°	1170.8	1179.6	1196.0	1217.5	1222.5
30°	1127.9	1141.8	1162.0	1183.4	1188.5
32.5°	1086.3	1100.2	1124.1	1146.8	1153.2
35°	1043.4	1056.0	1081.2	1107.7	1115.3
37.5°	994.2	1010.6	1038.3	1064.8	1072.4
40°	942.5	962.6	994.2	1021.9	1030.8
42.5°	893.3	914.7	946.2	976.5	986.6
45°	841.5	861.7	899.6	933.6	941.2
47.5°	788.5	811.2	851.6	885.7	898.3
50°	735.5	759.5	802.4	837.7	845.3
52.5°	682.6	707.8	753.2	791.1	794.8
55°	627.0	654.8	702.7	739.3	746.9
57.5°	576.6	600.5	652.3	690.1	699.0
60°	521.1	547.6	603.1	638.4	649.8
62.5°	468.1	495.8	553.9	589.2	599.3
65°	412.6	444.1	500.9	542.5	552.6
67.5°	364.6	394.9	455.5	495.8	505.9
70°	309.1	343.2	407.5	449.1	459.2
72.5°	261.2	296.5	360.8	401.2	416.3
75°	209.4	249.8	314.2	357.0	367.1
77.5°	159.0	205.6	271.3	304.1	304.1
80°	113.5	162.8	223.3	238.5	241.0
82.5°	74.4	122.4	165.3	164.0	164.0
85°	42.9	79.5	98.4	95.9	95.9
87.5°	16.4	32.8	35.3	35.3	34.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)