

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: P272080

Luminaire Tested: **24CZ2-45HE-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: P272080
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45HE-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4154.0 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

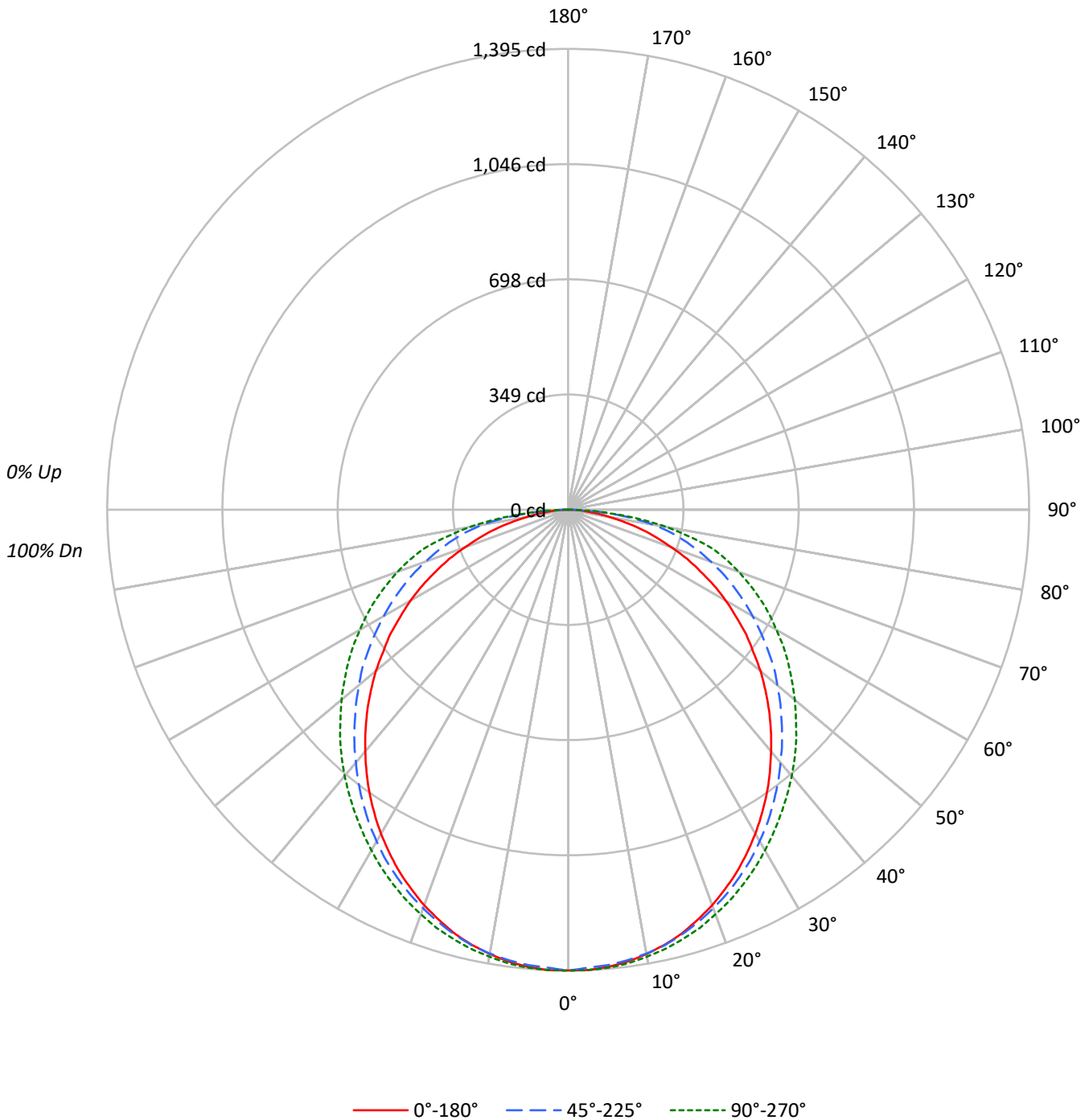
Input Watts (W): 35.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1877	1877	1877
5°	1876	1869	1880
10°	1866	1864	1877
15°	1850	1854	1873
20°	1824	1838	1866
25°	1795	1821	1859
30°	1760	1801	1850
35°	1722	1779	1845
40°	1678	1756	1848
45°	1636	1738	1857
50°	1590	1730	1875
55°	1541	1727	1909
60°	1481	1735	1958
65°	1404	1761	2044
70°	1303	1805	2160
75°	1189	1895	2342
80°	978	2041	2342
85°	749	1883	2012



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.9	3.2
10°-20°	376.6	9.1
20°-30°	566.7	13.6
30°-40°	679.1	16.3
40°-50°	707.7	17.0
50°-60°	658.4	15.9
60°-70°	542.3	13.1
70°-80°	369.3	8.9
80°-90°	121.9	2.9
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°	1075.2	25.9
0°-40°	1754.3	42.2
0°-60°	3120.4	75.1
0°-90°	4154.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4154.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1395	1395	1395	1395	1395	
5°	1389	1389	1384	1390	1392	132
15°	1328	1330	1331	1343	1345	374
25°	1209	1214	1227	1248	1252	557
35°	1048	1061	1083	1112	1123	655
45°	860	878	914	959	976	663
55°	657	679	736	794	814	586
65°	441	478	553	618	642	438
75°	229	280	365	430	451	241
85°	48	94	122	130	130	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1394.7	1394.7	1394.7	1394.7	1394.7
2.5°	1394.7	1394.7	1387.8	1394.7	1394.7
5°	1389.1	1389.1	1383.6	1390.5	1391.9
7.5°	1379.4	1380.8	1375.3	1383.6	1385.0
10°	1365.6	1367.0	1364.2	1372.5	1373.9
12.5°	1348.9	1350.3	1350.3	1360.0	1361.4
15°	1328.1	1329.5	1330.9	1343.4	1344.8
17.5°	1301.8	1306.0	1308.7	1324.0	1326.8
20°	1274.1	1278.2	1283.8	1300.4	1303.2
22.5°	1242.2	1247.7	1257.4	1275.5	1279.6
25°	1208.9	1214.5	1226.9	1247.7	1251.9
27.5°	1171.5	1179.8	1195.1	1217.2	1222.8
30°	1132.7	1141.0	1159.0	1182.6	1190.9
32.5°	1091.1	1102.2	1123.0	1149.3	1157.6
35°	1048.1	1060.6	1082.8	1111.9	1123.0
37.5°	1002.3	1016.2	1042.6	1074.4	1088.3
40°	955.2	971.8	999.6	1037.0	1052.3
42.5°	908.1	923.3	958.0	998.2	1014.8
45°	859.6	877.6	913.6	959.4	976.0
47.5°	809.6	827.7	870.6	919.2	934.4
50°	759.7	777.8	826.3	877.6	895.6
52.5°	705.7	729.2	784.7	836.0	854.0
55°	657.1	679.3	736.2	794.4	813.8
57.5°	601.7	628.0	690.4	751.4	772.2
60°	550.4	578.1	644.7	707.1	727.8
62.5°	497.7	528.2	598.9	662.7	686.3
65°	440.9	478.3	553.2	618.3	641.9
67.5°	389.6	428.4	507.4	574.0	594.8
70°	331.3	378.5	458.9	525.4	549.0
72.5°	281.4	328.6	413.1	478.3	501.9
75°	228.8	280.0	364.6	429.8	450.6
77.5°	176.1	232.9	317.5	367.4	374.3
80°	126.2	185.8	263.4	292.5	302.2
82.5°	88.7	142.8	194.1	213.5	219.0
85°	48.5	94.3	122.0	130.3	130.3
87.5°	20.8	40.2	48.5	49.9	51.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)