

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: P272086

Luminaire Tested: **24CZ2-50HE-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: P272086  
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: 24CZ2-50HE-UNV-L935-CD1-U  
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (224) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4245.0 lumens  
Efficiency: N/A  
Efficacy: 110.0 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

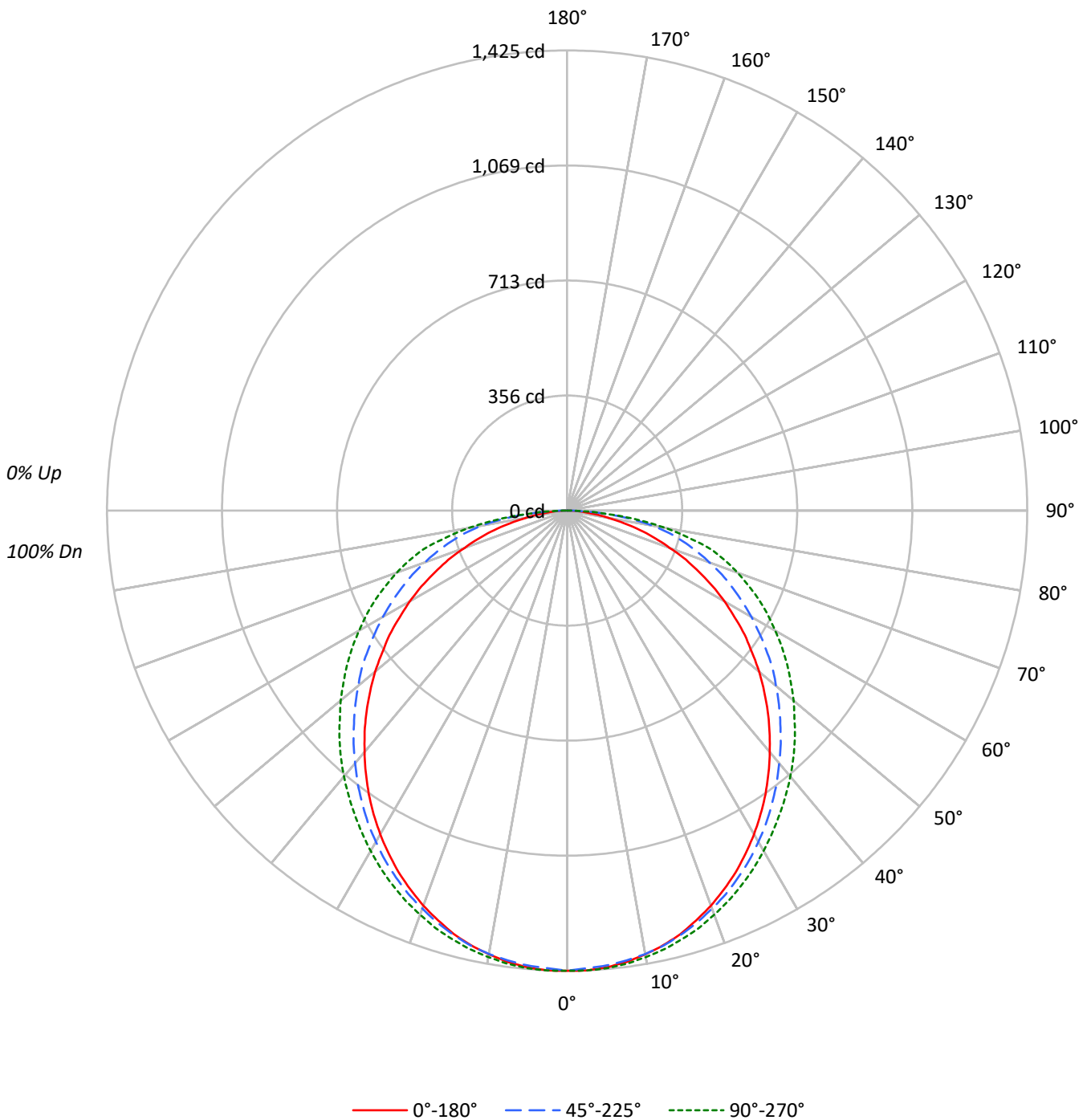
Input Watts (W): 38.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1918	1918	1918
5°	1917	1910	1921
10°	1907	1905	1918
15°	1891	1895	1914
20°	1864	1878	1907
25°	1834	1861	1899
30°	1798	1840	1891
35°	1759	1817	1885
40°	1714	1794	1889
45°	1671	1776	1898
50°	1625	1768	1916
55°	1575	1765	1951
60°	1513	1773	2002
65°	1434	1800	2089
70°	1332	1845	2207
75°	1215	1937	2393
80°	999	2086	2393
85°	766	1925	2056



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.8	3.2
10°-20°	384.8	9.1
20°-30°	579.1	13.6
30°-40°	694.0	16.3
40°-50°	723.2	17.0
50°-60°	672.9	15.9
60°-70°	554.2	13.1
70°-80°	377.4	8.9
80°-90°	124.6	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°	1098.7	25.9
0°-40°	1792.7	42.2
0°-60°	3188.8	75.1
0°-90°	4245.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4245.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1425	1425	1425	1425	1425	
5°	1420	1420	1414	1421	1422	135
15°	1357	1359	1360	1373	1374	382
25°	1235	1241	1254	1275	1279	569
35°	1071	1084	1106	1136	1148	670
45°	878	897	934	980	997	677
55°	672	694	752	812	832	599
65°	450	489	565	632	656	447
75°	234	286	373	439	460	246
85°	50	96	125	133	133	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1425.2	1425.2	1425.2	1425.2	1425.2
2.5°	1425.2	1425.2	1418.2	1425.2	1425.2
5°	1419.6	1419.6	1413.9	1421.0	1422.4
7.5°	1409.7	1411.1	1405.4	1413.9	1415.3
10°	1395.5	1396.9	1394.1	1402.6	1404.0
12.5°	1378.5	1379.9	1379.9	1389.8	1391.2
15°	1357.2	1358.7	1360.1	1372.8	1374.2
17.5°	1330.3	1334.6	1337.4	1353.0	1355.8
20°	1302.0	1306.2	1311.9	1328.9	1331.7
22.5°	1269.4	1275.1	1285.0	1303.4	1307.7
25°	1235.4	1241.1	1253.8	1275.1	1279.3
27.5°	1197.1	1205.6	1221.2	1243.9	1249.6
30°	1157.5	1166.0	1184.4	1208.5	1217.0
32.5°	1115.0	1126.3	1147.6	1174.5	1183.0
35°	1071.1	1083.8	1106.5	1136.2	1147.6
37.5°	1024.3	1038.5	1065.4	1098.0	1112.1
40°	976.1	993.1	1021.5	1059.7	1075.3
42.5°	928.0	943.6	979.0	1020.1	1037.1
45°	878.4	896.8	933.6	980.4	997.4
47.5°	827.4	845.8	889.7	939.3	954.9
50°	776.4	794.8	844.4	896.8	915.2
52.5°	721.1	745.2	801.9	854.3	872.7
55°	671.5	694.2	752.3	811.8	831.6
57.5°	614.9	641.8	705.5	767.9	789.1
60°	562.4	590.8	658.8	722.5	743.8
62.5°	508.6	539.8	612.0	677.2	701.3
65°	450.5	488.8	565.3	631.9	656.0
67.5°	398.1	437.8	518.5	586.5	607.8
70°	338.6	386.8	468.9	536.9	561.0
72.5°	287.6	335.8	422.2	488.8	512.9
75°	233.8	286.2	372.6	439.2	460.4
77.5°	179.9	238.0	324.4	375.4	382.5
80°	128.9	189.8	269.2	298.9	308.9
82.5°	90.7	145.9	198.3	218.2	223.8
85°	49.6	96.3	124.7	133.2	133.2
87.5°	21.3	41.1	49.6	51.0	52.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)