

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: P295056

Luminaire Tested: **24CZ2-55-HRP-UNV-L935-CD1-U**

Issue Date: 12/2/2019

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: P295056  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55-HRP-UNV-L935-CD1-U  
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
Light Source: (112) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

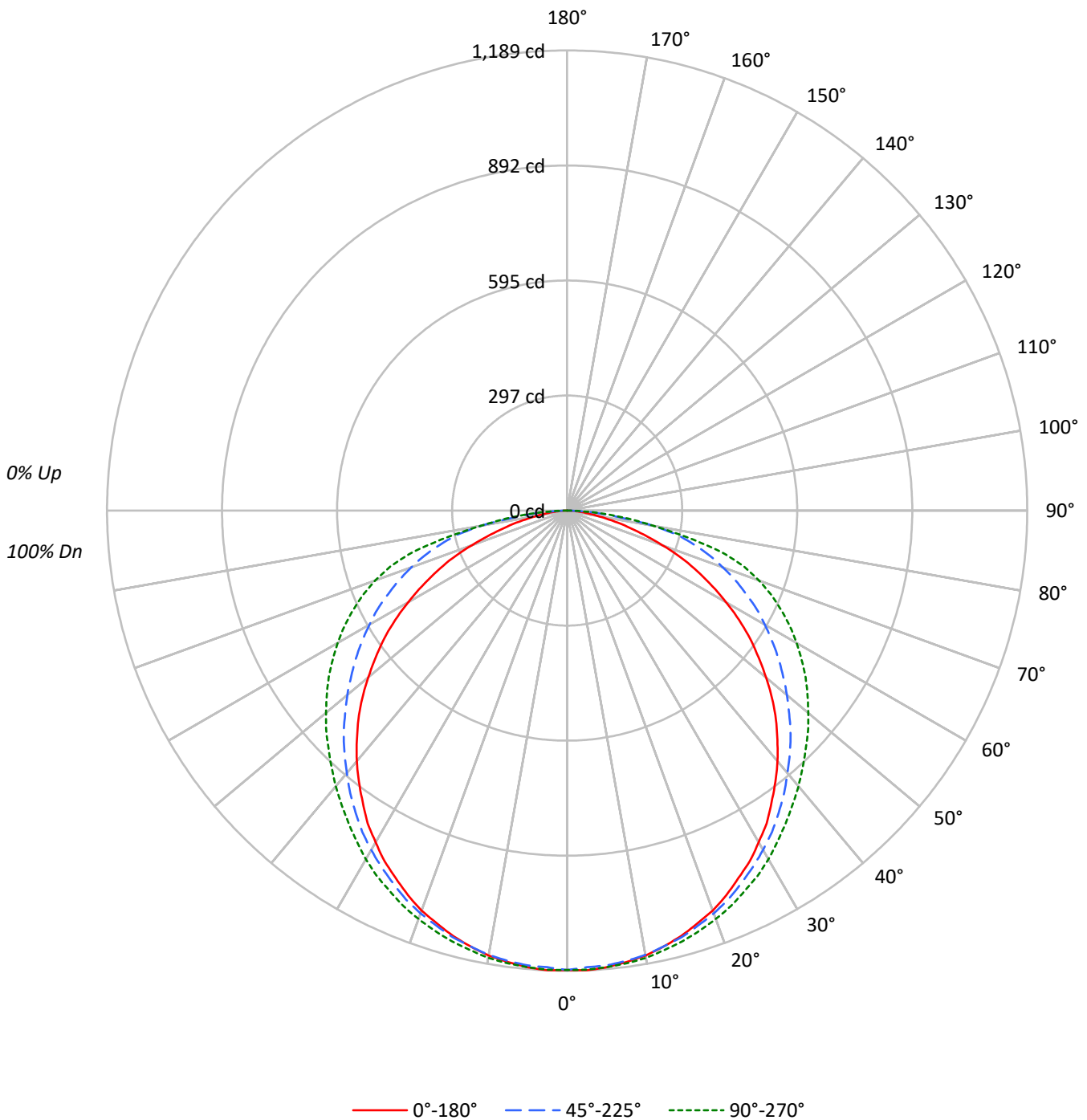
Lumens per Lamp: N/A  
Luminaire Lumens: 3659.2 lumens  
Efficiency: N/A  
Efficacy: 72.5 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 50.5  
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	101	96	93	96	93	90	92	90	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	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	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	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1597	1597	1597
5°	1599	1593	1599
10°	1595	1593	1603
15°	1585	1590	1605
20°	1575	1586	1608
25°	1556	1578	1610
30°	1537	1573	1616
35°	1512	1565	1618
40°	1485	1555	1633
45°	1452	1554	1659
50°	1405	1552	1703
55°	1355	1563	1765
60°	1278	1587	1843
65°	1180	1624	1946
70°	1031	1681	2073
75°	836	1768	2142
80°	618	1733	1733
85°	472	1277	1442



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.5	3.1
10°-20°	323.0	8.8
20°-30°	491.7	13.4
30°-40°	597.0	16.3
40°-50°	630.7	17.2
50°-60°	595.2	16.3
60°-70°	494.9	13.5
70°-80°	325.6	8.9
80°-90°	88.7	2.4
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°	927.1	25.3
0°-40°	1524.1	41.7
0°-60°	2750.1	75.2
0°-90°	3659.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3659.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1184	1184	1180	1184	1184	112
15°	1138	1140	1141	1152	1152	321
25°	1048	1054	1063	1082	1085	483
35°	921	931	953	977	985	576
45°	763	778	816	856	872	588
55°	578	602	666	729	752	514
65°	371	414	510	585	611	366
75°	161	234	340	403	412	173
85°	31	67	83	92	93	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1187.2	1187.2	1187.2	1187.2	1187.2
2.5°	1188.8	1187.2	1181.1	1187.2	1187.2
5°	1184.2	1184.2	1179.6	1184.2	1184.2
7.5°	1176.5	1176.5	1173.5	1179.6	1179.6
10°	1167.3	1167.3	1165.8	1173.5	1173.5
12.5°	1153.5	1155.1	1153.5	1162.7	1162.7
15°	1138.2	1139.8	1141.3	1152.0	1152.0
17.5°	1118.3	1121.4	1124.4	1136.7	1138.2
20°	1099.9	1101.5	1107.6	1121.4	1122.9
22.5°	1075.4	1080.0	1087.7	1101.5	1106.0
25°	1047.8	1054.0	1063.2	1081.5	1084.6
27.5°	1021.8	1026.4	1038.6	1058.6	1064.7
30°	989.6	997.3	1012.6	1032.5	1040.2
32.5°	959.0	966.6	985.0	1006.5	1012.6
35°	920.7	931.4	952.9	977.4	985.0
37.5°	883.9	894.6	920.7	948.3	957.5
40°	845.6	857.9	885.5	917.6	929.9
42.5°	804.3	821.1	851.7	887.0	900.8
45°	762.9	778.2	816.5	856.3	871.7
47.5°	718.5	736.9	778.2	825.7	844.1
50°	671.0	694.0	741.5	793.5	813.5
52.5°	623.5	649.5	703.2	761.4	782.8
55°	577.5	602.0	666.4	729.2	752.2
57.5°	527.0	557.6	628.1	695.5	718.5
60°	474.9	508.6	589.8	660.3	684.8
62.5°	422.8	461.1	553.0	623.5	649.5
65°	370.7	413.6	510.1	585.2	611.2
67.5°	320.2	367.7	470.3	545.4	571.4
70°	262.0	321.7	427.4	500.9	527.0
72.5°	208.3	277.3	386.0	455.0	478.0
75°	160.9	234.4	340.1	402.9	412.1
77.5°	118.0	191.5	292.6	314.0	315.6
80°	79.7	153.2	223.7	220.6	223.7
82.5°	52.1	114.9	140.9	157.8	159.3
85°	30.6	67.4	82.7	91.9	93.4
87.5°	15.3	23.0	29.1	30.6	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)