

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: P474012

Luminaire Tested: **24CZ2-35-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474012  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35-S-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

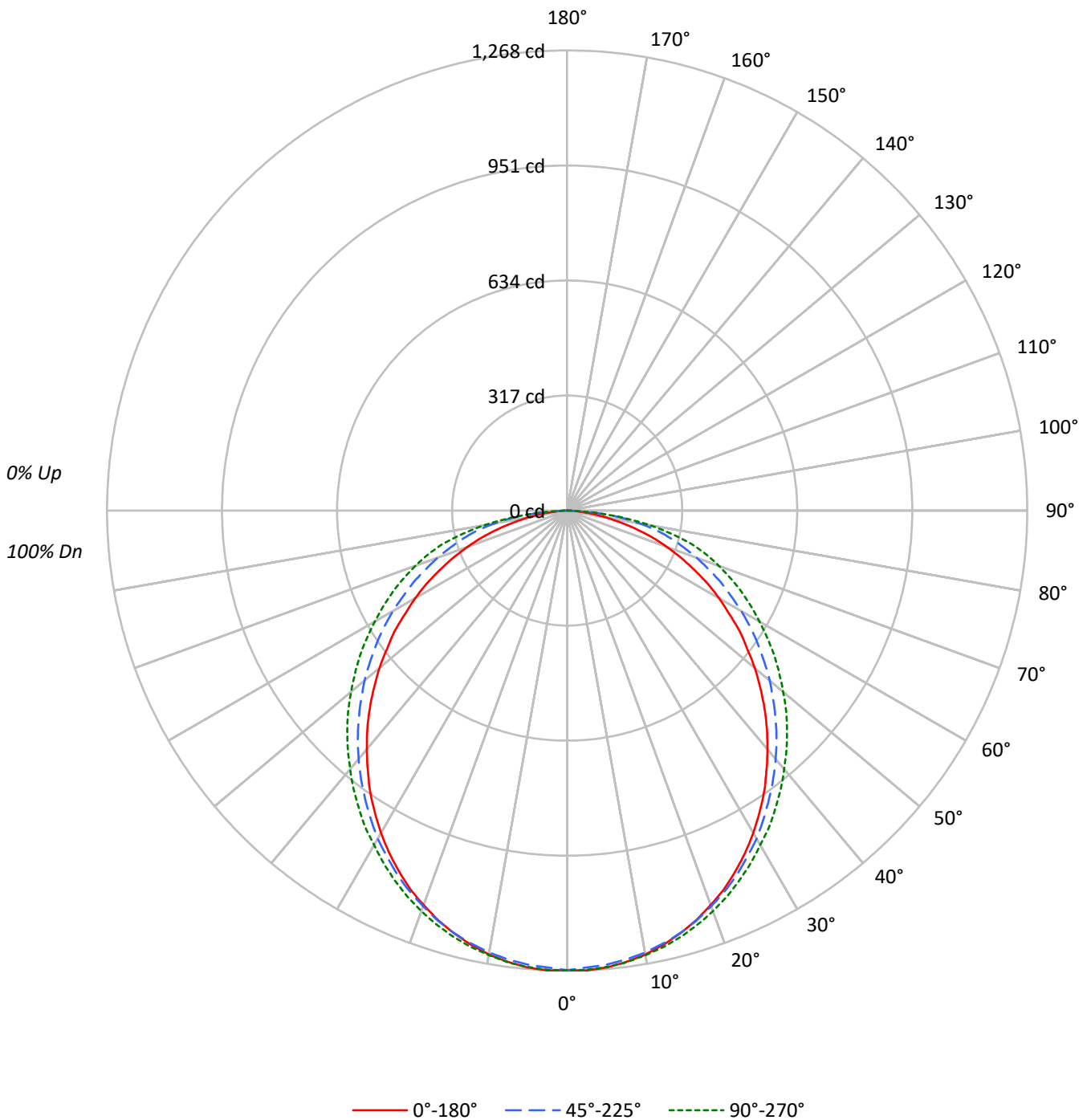
Lumens per Lamp: N/A  
Luminaire Lumens: 3628.2 lumens  
Efficiency: N/A  
Efficacy: 131.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.6  
Input Voltage (V): 120  
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	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	1704	1704	1704
5°	1706	1696	1705
10°	1697	1689	1699
15°	1679	1679	1693
20°	1656	1661	1682
25°	1629	1643	1669
30°	1594	1622	1653
35°	1554	1594	1644
40°	1508	1570	1634
45°	1463	1546	1631
50°	1413	1524	1627
55°	1363	1506	1636
60°	1301	1491	1647
65°	1231	1486	1687
70°	1149	1493	1747
75°	1023	1537	1840
80°	836	1570	1796
85°	588	1371	1399



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.7	3.3
10°-20°	341.0	9.4
20°-30°	511.1	14.1
30°-40°	608.8	16.8
40°-50°	627.7	17.3
50°-60°	572.8	15.8
60°-70°	458.0	12.6
70°-80°	299.2	8.2
80°-90°	89.8	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°	971.9	26.8
0°-40°	1580.6	43.6
0°-60°	2781.1	76.7
0°-90°	3628.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3628.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1266	1266	1266	1266	1266	
5°	1263	1261	1256	1263	1262	120
15°	1206	1206	1205	1215	1215	340
25°	1097	1099	1107	1123	1124	505
35°	946	953	970	995	1001	591
45°	769	782	812	846	857	593
55°	581	598	642	684	697	518
65°	387	413	467	512	530	384
75°	197	229	296	343	354	209
85°	38	68	89	91	91	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1266.4	1266.4	1266.4	1266.4	1266.4
2.5°	1268.2	1266.4	1259.8	1267.6	1266.4
5°	1263.4	1261.0	1255.7	1263.4	1262.2
7.5°	1253.9	1252.7	1247.3	1256.3	1255.1
10°	1242.0	1240.8	1236.6	1245.5	1243.7
12.5°	1225.3	1224.7	1221.7	1232.4	1231.2
15°	1205.6	1206.2	1205.0	1215.1	1215.1
17.5°	1183.0	1182.4	1184.7	1197.3	1196.1
20°	1156.7	1157.3	1160.3	1174.6	1174.6
22.5°	1129.3	1128.7	1135.3	1149.6	1150.8
25°	1097.1	1098.9	1106.7	1122.8	1124.0
27.5°	1062.6	1065.6	1075.1	1093.6	1095.4
30°	1026.2	1029.8	1044.1	1061.4	1063.8
32.5°	986.3	994.0	1007.2	1029.2	1035.2
35°	946.4	952.9	970.2	994.6	1000.6
37.5°	902.3	913.0	932.7	959.5	967.2
40°	858.8	869.5	893.9	921.9	930.3
42.5°	814.7	826.0	854.0	885.6	894.5
45°	768.8	782.5	812.3	846.2	857.0
47.5°	721.7	737.8	770.0	806.9	818.8
50°	675.2	691.3	728.3	766.4	777.1
52.5°	625.2	645.4	684.7	725.9	736.6
55°	581.1	597.7	641.8	684.1	697.3
57.5°	529.2	551.8	598.9	641.8	654.4
60°	483.3	504.2	554.2	597.7	612.0
62.5°	436.8	458.3	508.3	557.8	570.9
65°	386.8	413.0	466.6	512.5	529.8
67.5°	339.1	366.5	421.3	470.2	488.1
70°	292.0	320.0	379.6	429.7	444.0
72.5°	245.5	274.7	336.7	385.6	402.3
75°	196.7	229.4	295.6	343.3	354.0
77.5°	150.8	187.1	253.9	286.1	293.8
80°	107.9	147.8	202.6	225.9	231.8
82.5°	70.9	109.7	151.4	163.9	162.1
85°	38.1	68.5	88.8	90.6	90.6
87.5°	14.9	27.4	28.0	21.5	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)