

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: P473812

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473812
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

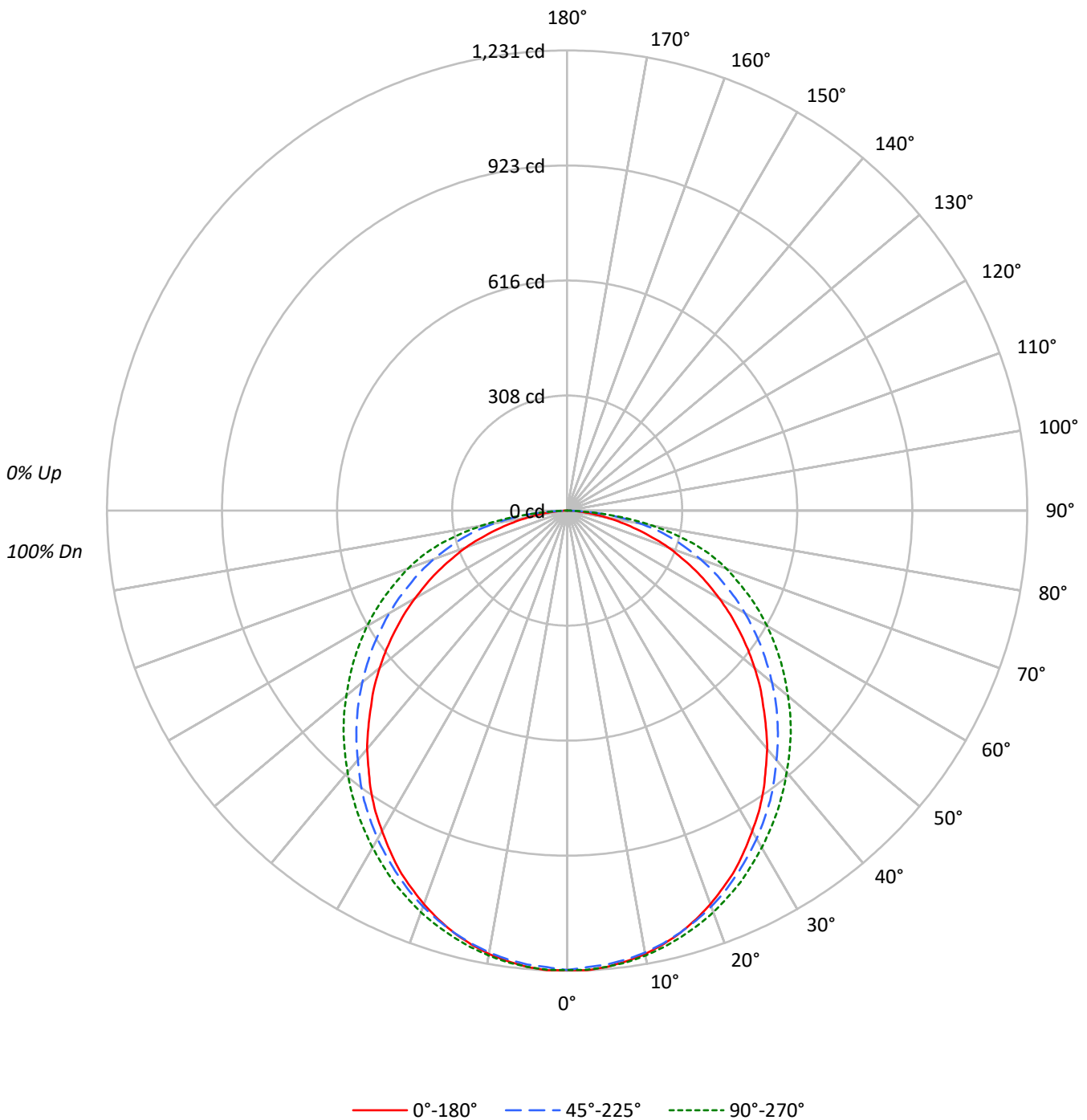
Lumens per Lamp: N/A
Luminaire Lumens: 3556.9 lumens
Efficiency: N/A
Efficacy: 128.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1654	1654	1654
5°	1655	1646	1655
10°	1646	1640	1651
15°	1629	1628	1644
20°	1604	1614	1637
25°	1576	1594	1629
30°	1538	1576	1618
35°	1504	1555	1611
40°	1462	1530	1605
45°	1413	1514	1610
50°	1370	1497	1614
55°	1320	1487	1632
60°	1265	1480	1662
65°	1206	1475	1705
70°	1135	1490	1784
75°	998	1521	1855
80°	833	1532	1790
85°	594	1312	1331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	3.3
10°-20°	331.0	9.3
20°-30°	496.5	14.0
30°-40°	592.8	16.7
40°-50°	614.0	17.3
50°-60°	565.3	15.9
60°-70°	456.0	12.8
70°-80°	297.9	8.4
80°-90°	87.3	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°	943.7	26.5
0°-40°	1536.4	43.2
0°-60°	2715.7	76.3
0°-90°	3556.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3556.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1225	1224	1219	1226	1225	116
15°	1169	1169	1169	1180	1180	329
25°	1062	1064	1074	1094	1098	488
35°	915	923	947	973	981	572
45°	742	761	796	832	846	574
55°	563	587	634	680	696	503
65°	379	404	463	516	536	374
75°	192	228	292	343	357	205
85°	38	67	85	90	86	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1229.1	1229.1	1229.1	1229.1	1229.1
2.5°	1230.9	1229.1	1222.8	1230.3	1229.7
5°	1225.1	1224.0	1218.8	1225.7	1225.1
7.5°	1215.9	1215.4	1211.3	1218.8	1218.8
10°	1204.4	1203.3	1200.4	1209.0	1208.5
12.5°	1188.3	1187.8	1186.0	1196.4	1195.8
15°	1169.4	1169.4	1168.8	1180.3	1180.3
17.5°	1146.4	1147.0	1149.3	1162.5	1163.1
20°	1120.5	1122.8	1127.4	1142.4	1143.5
22.5°	1091.2	1095.8	1102.2	1118.8	1120.5
25°	1061.9	1064.2	1074.0	1093.5	1097.6
27.5°	1026.3	1032.0	1044.7	1064.8	1068.8
30°	990.1	998.1	1014.2	1034.9	1041.2
32.5°	954.5	961.4	980.3	1003.9	1011.4
35°	915.4	923.4	947.0	972.9	980.9
37.5°	872.3	884.9	909.6	939.5	948.2
40°	832.6	844.1	871.1	904.5	913.7
42.5°	787.3	801.6	834.4	868.3	879.8
45°	742.4	760.8	795.9	831.5	845.9
47.5°	700.5	715.4	756.8	797.0	809.7
50°	654.5	671.8	715.4	757.9	771.2
52.5°	609.1	629.8	674.0	718.9	733.2
55°	562.6	586.7	633.8	680.4	695.9
57.5°	517.7	541.9	590.7	640.1	656.2
60°	470.1	495.9	549.9	597.6	617.7
62.5°	424.1	449.9	506.8	558.5	577.5
65°	378.7	404.5	463.2	516.0	535.6
67.5°	331.6	359.7	422.4	473.5	492.5
70°	288.5	315.5	378.7	433.3	453.4
72.5°	239.0	271.2	335.6	389.6	408.6
75°	191.9	228.1	292.5	343.1	356.8
77.5°	148.3	184.5	248.8	286.7	295.4
80°	107.5	144.2	197.7	224.1	231.0
82.5°	69.5	107.5	143.1	160.9	163.2
85°	38.5	66.7	85.0	90.2	86.2
87.5°	13.8	25.3	24.7	20.1	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)