

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: P473833

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473833
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

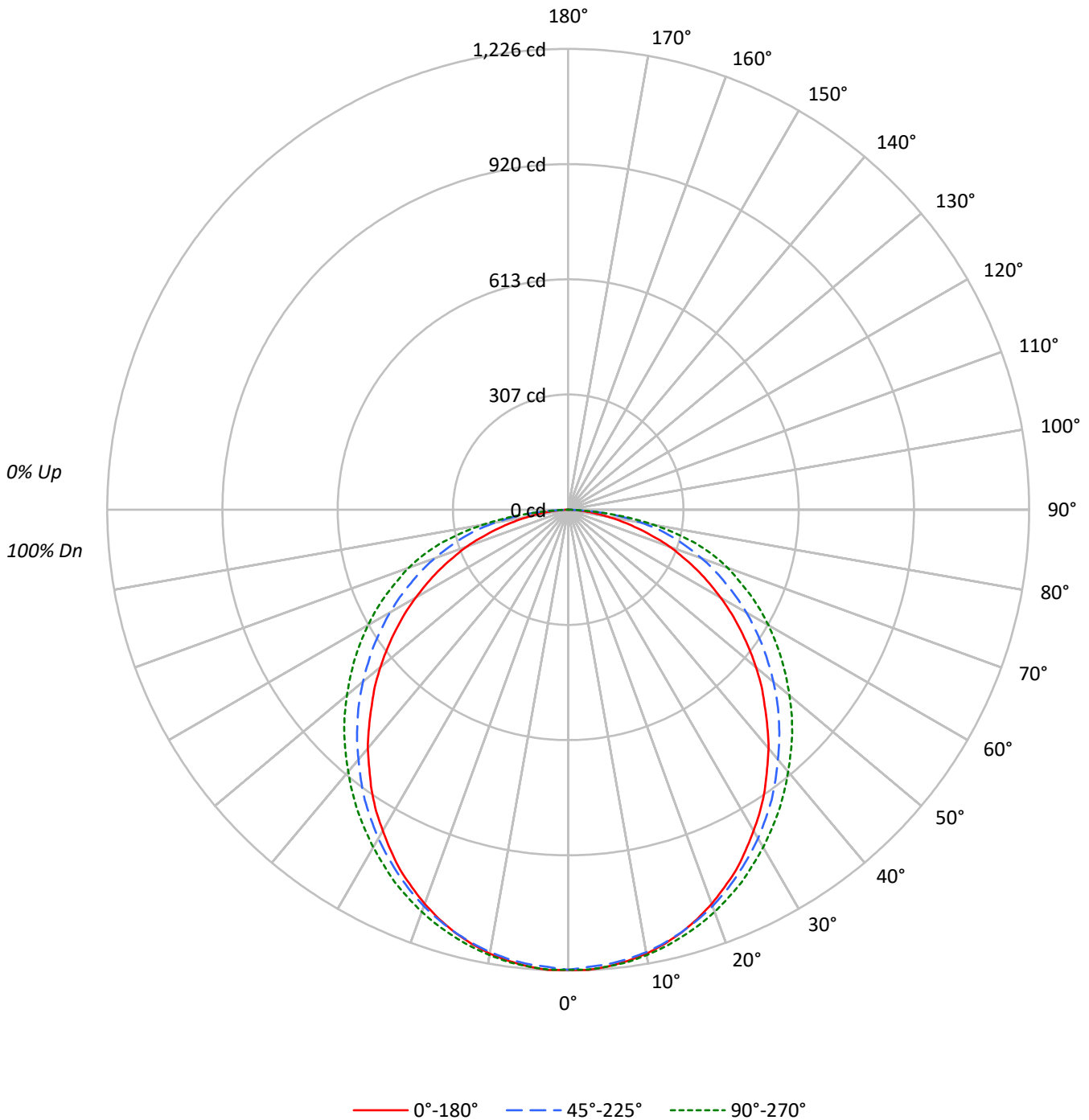
Lumens per Lamp: N/A
Luminaire Lumens: 3541.9 lumens
Efficiency: N/A
Efficacy: 148.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.9
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°	1647	1647	1647
5°	1648	1639	1648
10°	1639	1633	1644
15°	1622	1621	1637
20°	1598	1608	1630
25°	1570	1588	1623
30°	1532	1569	1611
35°	1497	1549	1604
40°	1456	1524	1598
45°	1407	1508	1603
50°	1364	1491	1607
55°	1314	1481	1626
60°	1260	1474	1655
65°	1201	1468	1698
70°	1130	1483	1776
75°	993	1514	1847
80°	829	1525	1782
85°	591	1308	1325



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.7	3.3
10°-20°	329.6	9.3
20°-30°	494.4	14.0
30°-40°	590.3	16.7
40°-50°	611.4	17.3
50°-60°	562.9	15.9
60°-70°	454.0	12.8
70°-80°	296.7	8.4
80°-90°	87.0	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°	939.7	26.5
0°-40°	1530.0	43.2
0°-60°	2704.2	76.3
0°-90°	3541.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3541.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1224	1224	1224	1224	1224	
5°	1220	1219	1214	1220	1220	116
15°	1164	1164	1164	1175	1175	328
25°	1058	1060	1070	1089	1093	486
35°	912	920	943	969	977	569
45°	739	758	792	828	842	571
55°	560	584	631	678	693	501
65°	377	403	461	514	533	373
75°	191	227	291	342	355	204
85°	38	66	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°	1224.0	1224.0	1224.0	1224.0	1224.0
2.5°	1225.7	1224.0	1217.7	1225.1	1224.5
5°	1220.0	1218.8	1213.7	1220.5	1220.0
7.5°	1210.8	1210.2	1206.2	1213.7	1213.7
10°	1199.4	1198.2	1195.4	1203.9	1203.4
12.5°	1183.3	1182.8	1181.0	1191.3	1190.8
15°	1164.5	1164.5	1163.9	1175.3	1175.3
17.5°	1141.6	1142.1	1144.4	1157.6	1158.2
20°	1115.8	1118.1	1122.7	1137.6	1138.7
22.5°	1086.6	1091.2	1097.5	1114.1	1115.8
25°	1057.5	1059.7	1069.5	1088.9	1092.9
27.5°	1022.0	1027.7	1040.3	1060.3	1064.3
30°	985.9	993.9	1010.0	1030.6	1036.9
32.5°	950.4	957.3	976.2	999.7	1007.1
35°	911.5	919.5	943.0	968.8	976.8
37.5°	868.6	881.2	905.8	935.6	944.2
40°	829.1	840.6	867.5	900.7	909.8
42.5°	783.9	798.2	830.9	864.6	876.1
45°	739.3	757.6	792.5	828.0	842.3
47.5°	697.5	712.4	753.6	793.7	806.2
50°	651.8	668.9	712.4	754.7	767.9
52.5°	606.5	627.1	671.2	715.8	730.1
55°	560.2	584.2	631.2	677.5	693.0
57.5°	515.6	539.6	588.2	637.4	653.5
60°	468.1	493.8	547.6	595.1	615.1
62.5°	422.3	448.0	504.7	556.2	575.1
65°	377.1	402.8	461.2	513.8	533.3
67.5°	330.2	358.2	420.6	471.5	490.4
70°	287.3	314.1	377.1	431.4	451.5
72.5°	238.0	270.1	334.2	388.0	406.8
75°	191.1	227.2	291.3	341.6	355.3
77.5°	147.6	183.7	247.8	285.5	294.1
80°	107.0	143.6	196.8	223.2	230.0
82.5°	69.2	107.0	142.5	160.2	162.5
85°	38.3	66.4	84.7	89.8	85.8
87.5°	13.7	25.2	24.6	20.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)