

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: P474062

Luminaire Tested: **24CZ2-35-S-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474062
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

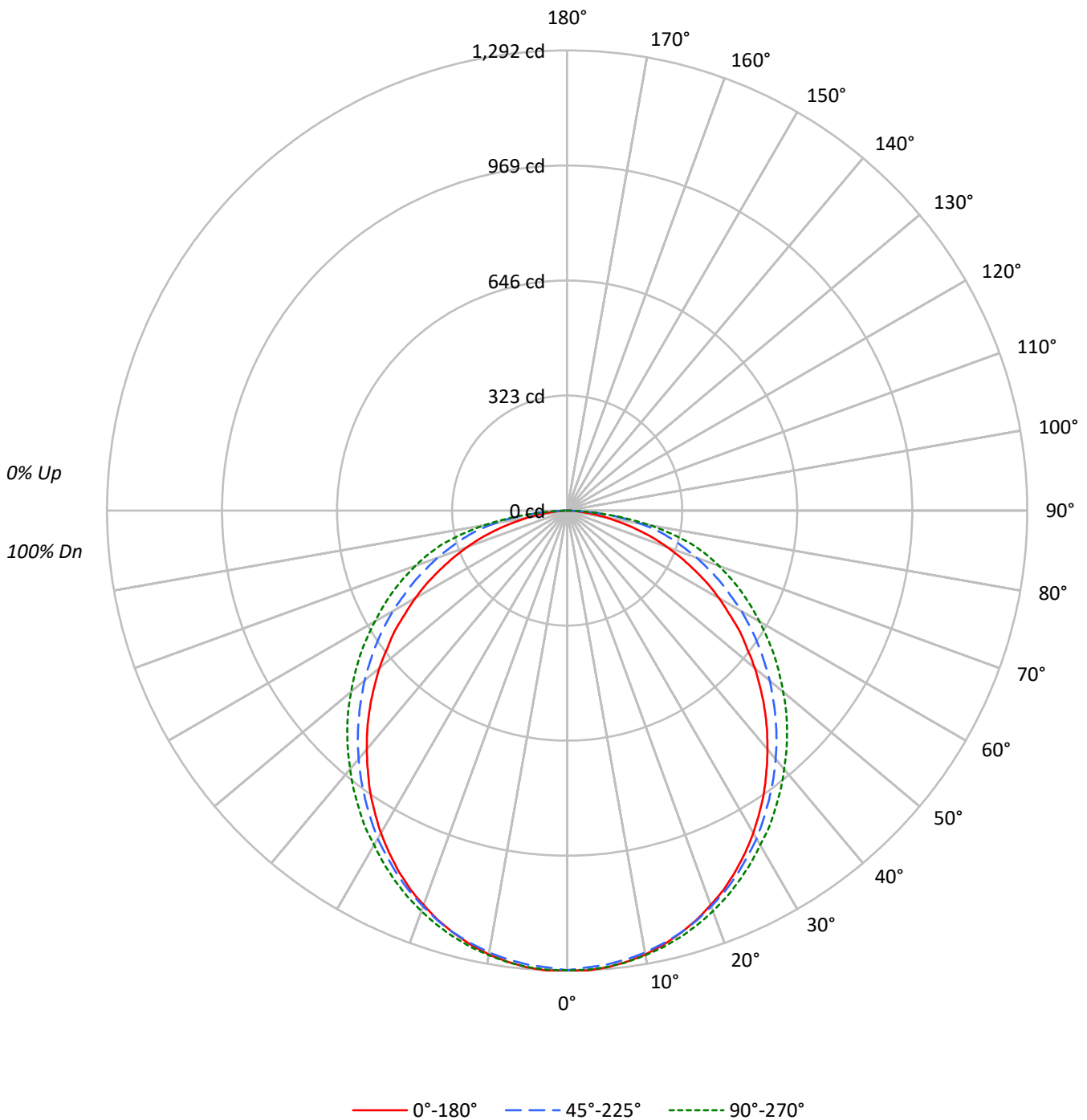
Lumens per Lamp: N/A
Luminaire Lumens: 3697.1 lumens
Efficiency: N/A
Efficacy: 134.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83				83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68				68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57				57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49				49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42				42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37				37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32				32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29				29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26				26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24				24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1736	1736	1736
5°	1739	1728	1737
10°	1729	1722	1732
15°	1711	1710	1725
20°	1688	1693	1714
25°	1660	1674	1700
30°	1625	1653	1684
35°	1584	1624	1675
40°	1537	1600	1665
45°	1491	1575	1662
50°	1440	1553	1658
55°	1389	1534	1667
60°	1325	1520	1678
65°	1255	1514	1719
70°	1171	1522	1780
75°	1042	1566	1875
80°	852	1600	1830
85°	601	1397	1425



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.0	3.3
10°-20°	347.5	9.4
20°-30°	520.9	14.1
30°-40°	620.3	16.8
40°-50°	639.6	17.3
50°-60°	583.7	15.8
60°-70°	466.7	12.6
70°-80°	304.9	8.2
80°-90°	91.5	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°	990.3	26.8
0°-40°	1610.7	43.6
0°-60°	2834.0	76.7
0°-90°	3697.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3697.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1290	1290	1290	1290	1290	
5°	1287	1285	1280	1287	1286	122
15°	1228	1229	1228	1238	1238	346
25°	1118	1120	1128	1144	1145	515
35°	964	971	989	1014	1020	602
45°	783	797	828	862	873	604
55°	592	609	654	697	710	527
65°	394	421	476	522	540	391
75°	200	234	301	350	361	213
85°	39	70	90	92	92	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1290.5	1290.5	1290.5	1290.5	1290.5
2.5°	1292.3	1290.5	1283.8	1291.7	1290.5
5°	1287.4	1285.0	1279.5	1287.4	1286.2
7.5°	1277.7	1276.5	1271.0	1280.1	1278.9
10°	1265.6	1264.3	1260.1	1269.2	1267.4
12.5°	1248.6	1247.9	1244.9	1255.8	1254.6
15°	1228.5	1229.1	1227.9	1238.2	1238.2
17.5°	1205.4	1204.8	1207.3	1220.0	1218.8
20°	1178.7	1179.3	1182.4	1196.9	1196.9
22.5°	1150.8	1150.2	1156.9	1171.4	1172.6
25°	1118.0	1119.8	1127.7	1144.1	1145.3
27.5°	1082.8	1085.8	1095.5	1114.3	1116.2
30°	1045.7	1049.4	1063.9	1081.6	1084.0
32.5°	1005.0	1012.9	1026.3	1048.8	1054.8
35°	964.3	971.0	988.6	1013.5	1019.6
37.5°	919.4	930.3	950.4	977.7	985.6
40°	875.1	886.0	910.9	939.5	948.0
42.5°	830.1	841.7	870.2	902.4	911.5
45°	783.4	797.3	827.7	862.3	873.3
47.5°	735.4	751.8	784.6	822.2	834.4
50°	688.0	704.4	742.1	781.0	791.9
52.5°	637.0	657.7	697.8	739.7	750.6
55°	592.1	609.1	654.0	697.1	710.5
57.5°	539.3	562.3	610.3	654.0	666.8
60°	492.5	513.8	564.8	609.1	623.7
62.5°	445.1	467.0	518.0	568.4	581.8
65°	394.1	420.8	475.5	522.3	539.9
67.5°	345.5	373.5	429.3	479.1	497.4
70°	297.6	326.1	386.8	437.8	452.4
72.5°	250.2	280.0	343.1	392.9	409.9
75°	200.4	233.8	301.2	349.8	360.7
77.5°	153.6	190.7	258.7	291.5	299.4
80°	109.9	150.6	206.5	230.2	236.2
82.5°	72.3	111.7	154.2	167.0	165.2
85°	38.9	69.8	90.5	92.3	92.3
87.5°	15.2	27.9	28.5	21.9	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)