

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: P475399

Luminaire Tested: **14CZ2-39-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475399
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-39-S-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

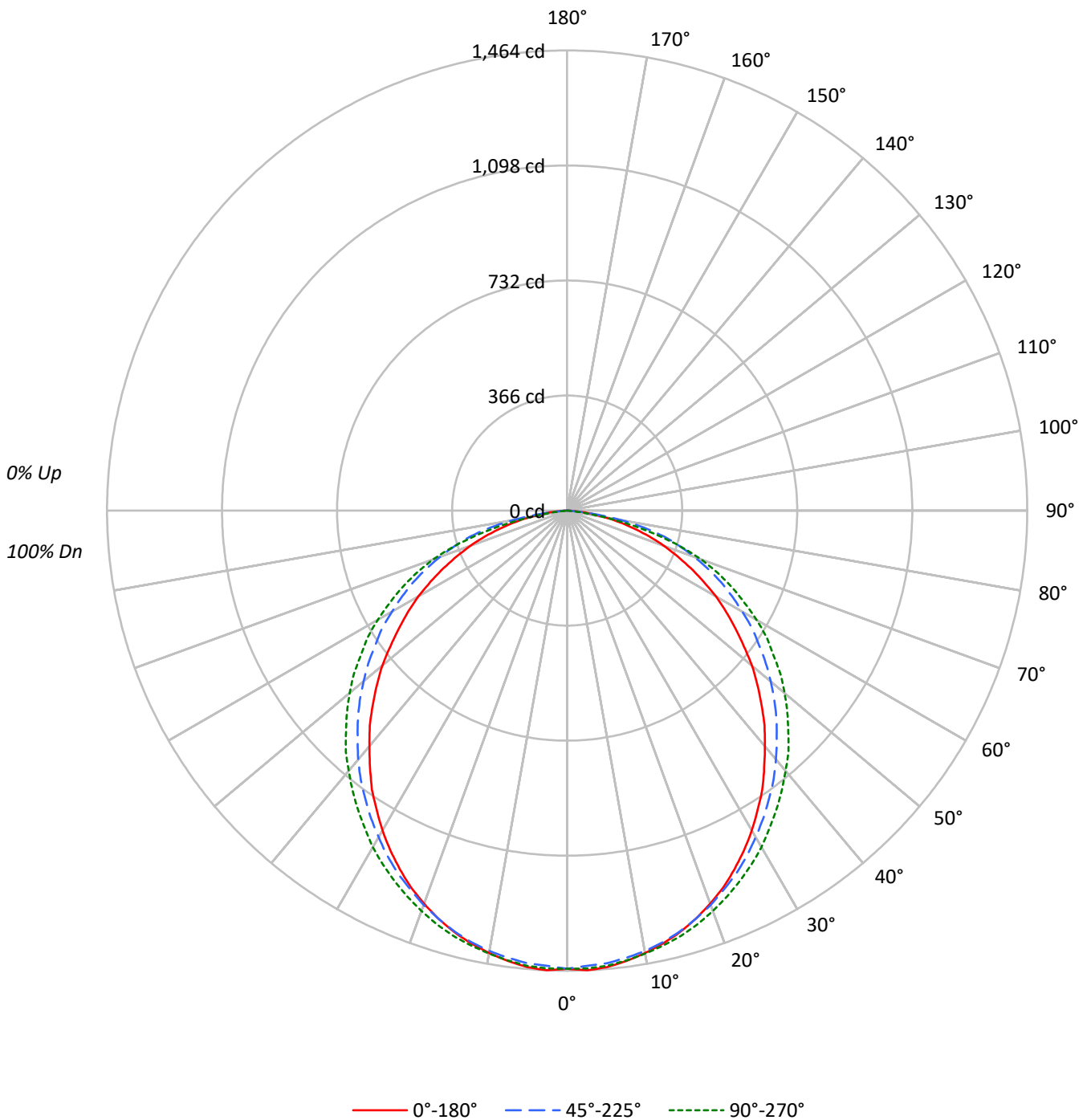
Lumens per Lamp: N/A
Luminaire Lumens: 4074.8 lumens
Efficiency: N/A
Efficacy: 136.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
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	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3923	3923	3923
5°	3938	3905	3927
10°	3905	3888	3910
15°	3867	3862	3901
20°	3811	3823	3881
25°	3739	3781	3860
30°	3652	3728	3842
35°	3558	3679	3814
40°	3438	3632	3797
45°	3327	3584	3787
50°	3214	3540	3780
55°	3064	3497	3756
60°	2942	3460	3746
65°	2764	3442	3689
70°	2578	3383	3560
75°	2278	3321	3002
80°	1841	2696	1777
85°	1328	760	188



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.8	3.4
10°-20°	392.5	9.6
20°-30°	588.9	14.5
30°-40°	702.0	17.2
40°-50°	724.9	17.8
50°-60°	660.2	16.2
60°-70°	517.2	12.7
70°-80°	299.3	7.3
80°-90°	52.0	1.3
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°	1119.3	27.5
0°-40°	1821.3	44.7
0°-60°	3206.3	78.7
0°-90°	4074.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4074.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1458	1454	1446	1456	1454	138
15°	1388	1386	1386	1400	1400	391
25°	1259	1263	1274	1298	1300	580
35°	1083	1093	1120	1155	1161	676
45°	874	897	942	985	995	675
55°	653	686	745	792	800	585
65°	434	473	540	575	579	430
75°	219	266	319	309	289	234
85°	43	57	25	8	6	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1457.8	1457.8	1457.8	1457.8	1457.8
2.5°	1463.9	1457.8	1449.6	1457.8	1457.8
5°	1457.8	1453.7	1445.5	1455.7	1453.7
7.5°	1445.5	1441.4	1435.2	1445.5	1443.4
10°	1429.1	1427.1	1423.0	1435.2	1431.1
12.5°	1410.7	1408.6	1406.6	1418.9	1416.8
15°	1388.2	1386.1	1386.1	1400.4	1400.4
17.5°	1361.5	1361.5	1361.5	1380.0	1380.0
20°	1330.8	1330.8	1334.9	1355.4	1355.4
22.5°	1298.1	1298.1	1304.2	1326.7	1328.8
25°	1259.2	1263.3	1273.5	1298.1	1300.1
27.5°	1218.2	1224.4	1238.7	1265.3	1269.4
30°	1175.2	1181.4	1199.8	1230.5	1236.6
32.5°	1128.1	1138.4	1160.9	1191.6	1197.7
35°	1083.1	1093.3	1119.9	1154.7	1160.9
37.5°	1029.9	1046.2	1079.0	1111.8	1122.0
40°	978.7	997.1	1033.9	1072.8	1081.0
42.5°	929.5	945.9	986.9	1029.9	1042.1
45°	874.2	896.8	941.8	984.8	995.0
47.5°	821.0	843.5	894.7	939.8	950.0
50°	767.8	790.3	845.6	890.6	902.9
52.5°	708.4	741.2	796.4	841.5	855.8
55°	653.1	685.9	745.3	792.4	800.5
57.5°	599.9	632.7	698.2	741.2	753.5
60°	546.7	579.4	642.9	685.9	696.1
62.5°	489.3	526.2	591.7	628.6	636.7
65°	434.1	473.0	540.5	575.3	579.4
67.5°	378.8	419.7	485.2	513.9	518.0
70°	327.6	368.5	430.0	456.6	452.5
72.5°	274.4	315.3	374.7	389.0	376.7
75°	219.1	266.2	319.4	309.2	288.7
77.5°	169.9	215.0	249.8	219.1	202.7
80°	118.8	165.8	174.0	135.1	114.7
82.5°	77.8	116.7	94.2	57.3	51.2
85°	43.0	57.3	24.6	8.2	6.1
87.5°	14.3	8.2	4.1	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)