

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: P475390

Luminaire Tested: **14CZ2-39-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475390
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-L835-CD1-U
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

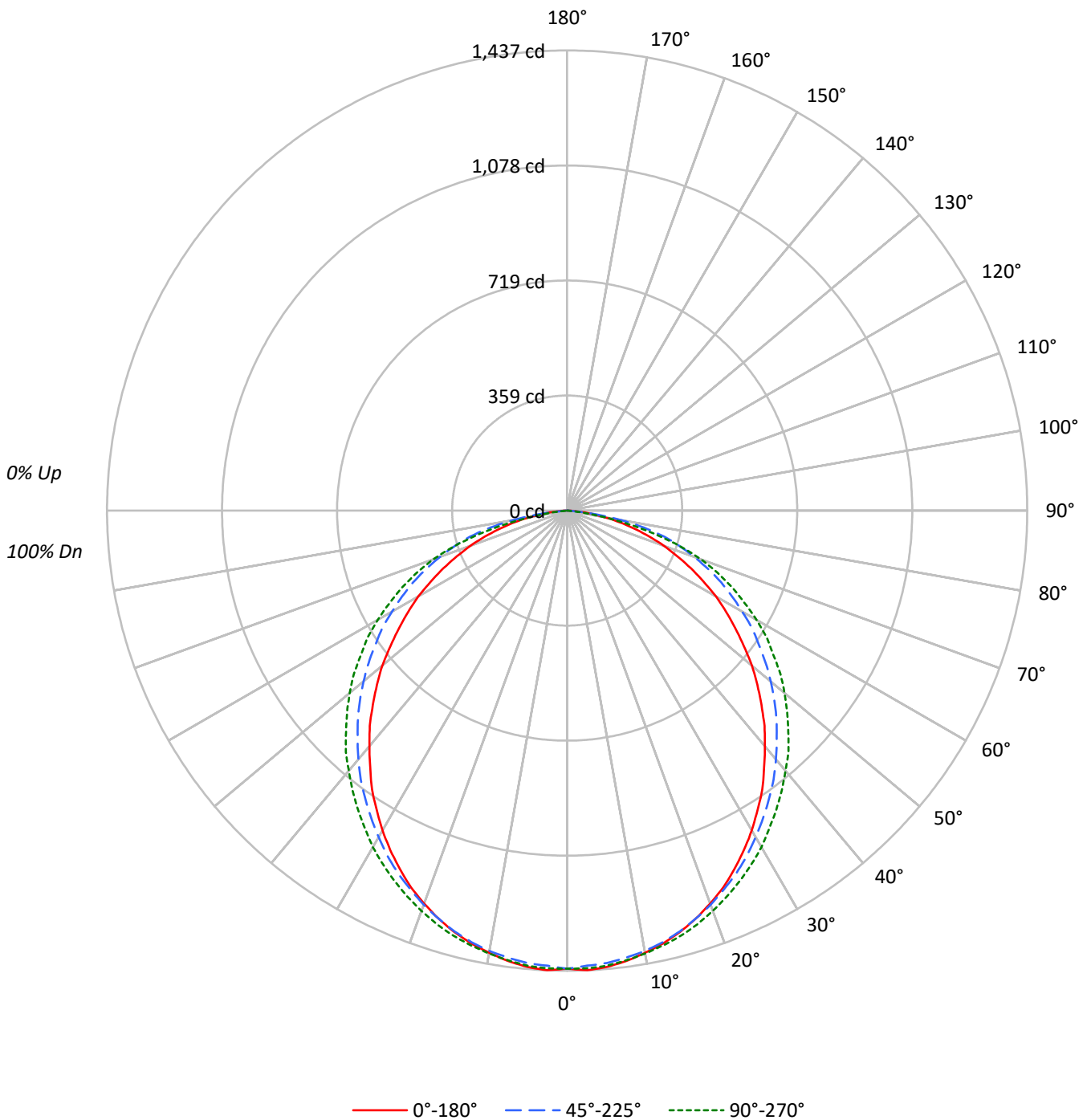
Lumens per Lamp: N/A
Luminaire Lumens: 3998.8 lumens
Efficiency: N/A
Efficacy: 134.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3850	3850	3850
5°	3864	3832	3854
10°	3832	3816	3838
15°	3795	3790	3829
20°	3740	3751	3809
25°	3669	3711	3788
30°	3584	3659	3771
35°	3492	3611	3742
40°	3374	3564	3727
45°	3265	3518	3716
50°	3154	3474	3710
55°	3007	3431	3686
60°	2887	3395	3676
65°	2713	3377	3621
70°	2530	3319	3493
75°	2235	3258	2946
80°	1805	2647	1743
85°	1303	744	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.3	3.4
10°-20°	385.2	9.6
20°-30°	577.9	14.5
30°-40°	688.9	17.2
40°-50°	711.4	17.8
50°-60°	647.9	16.2
60°-70°	507.6	12.7
70°-80°	293.7	7.3
80°-90°	51.0	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°	1098.4	27.5
0°-40°	1787.3	44.7
0°-60°	3146.5	78.7
0°-90°	3998.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3998.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1431	1431	1431	1431	1431	
5°	1431	1427	1418	1429	1427	136
15°	1362	1360	1360	1374	1374	384
25°	1236	1240	1250	1274	1276	569
35°	1063	1073	1099	1133	1139	663
45°	858	880	924	966	976	662
55°	641	673	731	778	786	575
65°	426	464	530	565	569	422
75°	215	261	313	303	283	229
85°	42	56	24	8	6	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1430.6	1430.6	1430.6	1430.6	1430.6
2.5°	1436.6	1430.6	1422.5	1430.6	1430.6
5°	1430.6	1426.6	1418.5	1428.6	1426.6
7.5°	1418.5	1414.5	1408.5	1418.5	1416.5
10°	1402.5	1400.4	1396.4	1408.5	1404.5
12.5°	1384.4	1382.4	1380.4	1392.4	1390.4
15°	1362.3	1360.3	1360.3	1374.3	1374.3
17.5°	1336.1	1336.1	1336.1	1354.2	1354.2
20°	1306.0	1306.0	1310.0	1330.1	1330.1
22.5°	1273.9	1273.9	1279.9	1302.0	1304.0
25°	1235.7	1239.7	1249.8	1273.9	1275.9
27.5°	1195.5	1201.5	1215.6	1241.7	1245.7
30°	1153.3	1159.3	1177.4	1207.6	1213.6
32.5°	1107.1	1117.1	1139.2	1169.4	1175.4
35°	1062.9	1072.9	1099.1	1133.2	1139.2
37.5°	1010.7	1026.7	1058.9	1091.0	1101.1
40°	960.4	978.5	1014.7	1052.8	1060.9
42.5°	912.2	928.3	968.5	1010.7	1022.7
45°	857.9	880.0	924.3	966.4	976.5
47.5°	805.7	827.8	878.0	922.2	932.3
50°	753.5	775.6	829.8	874.0	886.1
52.5°	695.2	727.3	781.6	825.8	839.9
55°	640.9	673.1	731.4	777.6	785.6
57.5°	588.7	620.9	685.2	727.3	739.4
60°	536.5	568.6	630.9	673.1	683.1
62.5°	480.2	516.4	580.7	616.8	624.9
65°	426.0	464.1	530.4	564.6	568.6
67.5°	371.7	411.9	476.2	504.3	508.3
70°	321.5	361.7	421.9	448.1	444.0
72.5°	269.2	309.4	367.7	381.8	369.7
75°	215.0	261.2	313.4	303.4	283.3
77.5°	166.8	211.0	245.1	215.0	198.9
80°	116.5	162.7	170.8	132.6	112.5
82.5°	76.4	114.5	92.4	56.3	50.2
85°	42.2	56.3	24.1	8.0	6.0
87.5°	14.1	8.0	4.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)