

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: P475352

Luminaire Tested: **14CZ2-29-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475352
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-29-UNV-L835-CD1-U
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

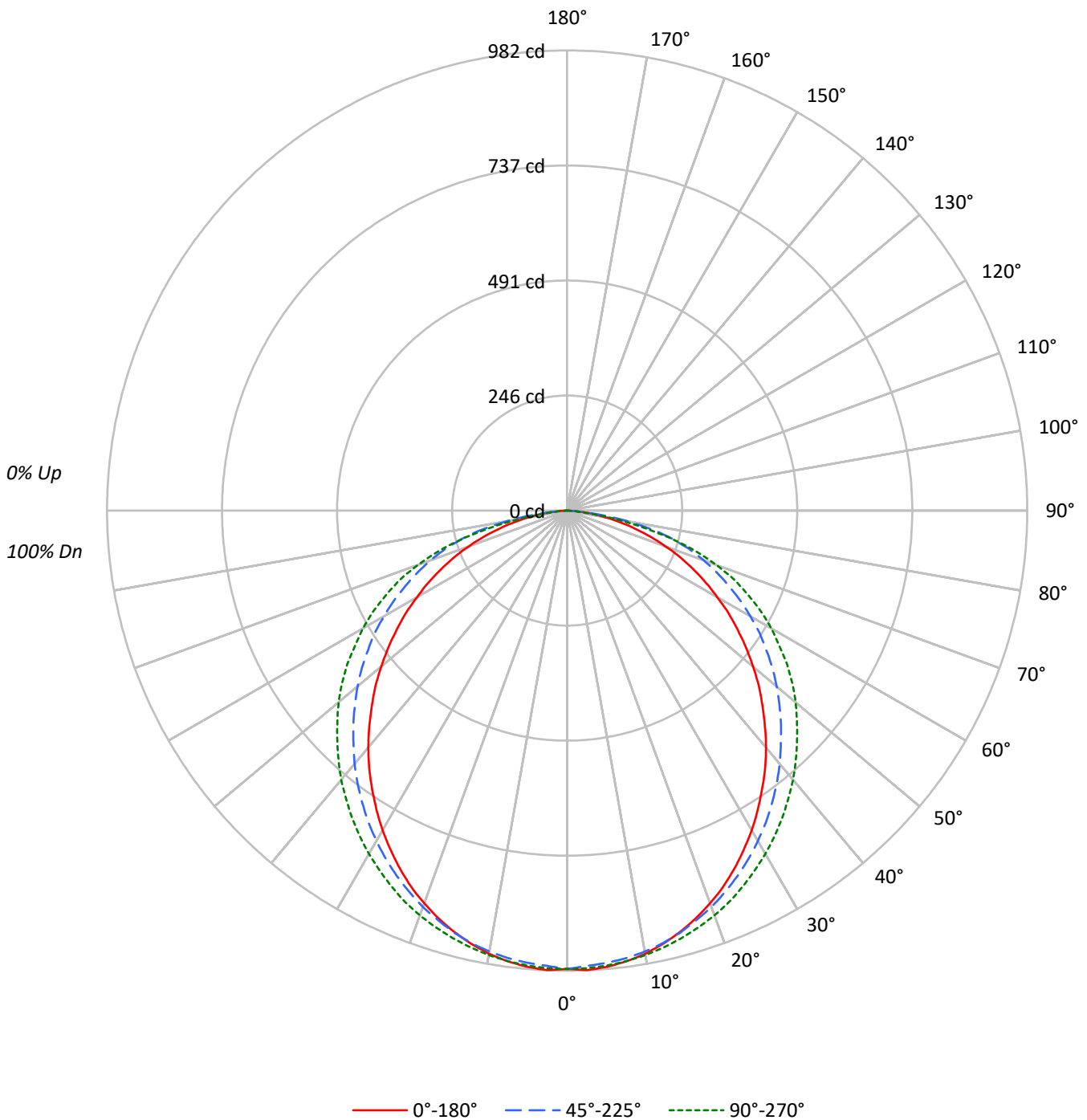
Lumens per Lamp: N/A
Luminaire Lumens: 2819.9 lumens
Efficiency: N/A
Efficacy: 131.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.29 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 21.4
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



TEST NUMBER: P475352
CATALOG NUMBER: 14CZ2-29-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475352

CATALOG NUMBER: 14CZ2-29-UNV-L835-CD1-U

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	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2633	2633	2633
5°	2640	2617	2632
10°	2624	2611	2632
15°	2594	2598	2631
20°	2554	2578	2632
25°	2505	2554	2630
30°	2448	2529	2629
35°	2383	2503	2629
40°	2320	2479	2635
45°	2243	2455	2641
50°	2167	2444	2665
55°	2085	2434	2688
60°	1993	2430	2708
65°	1892	2424	2713
70°	1762	2438	2661
75°	1562	2407	2387
80°	1311	2013	1626
85°	920	787	188



TEST NUMBER: P475352

CATALOG NUMBER: 14CZ2-29-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.5	3.3
10°-20°	264.2	9.4
20°-30°	398.0	14.1
30°-40°	477.8	16.9
40°-50°	497.4	17.6
50°-60°	459.6	16.3
60°-70°	368.1	13.1
70°-80°	220.3	7.8
80°-90°	42.0	1.5
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°	754.7	26.8
0°-40°	1232.5	43.7
0°-60°	2189.5	77.6
0°-90°	2819.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2819.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	977	975	969	976	974	93
15°	931	931	932	944	944	262
25°	844	848	860	882	886	388
35°	726	736	762	792	800	454
45°	590	607	645	684	694	455
55°	444	469	519	559	573	398
65°	297	328	381	418	426	295
75°	150	188	232	235	230	160
85°	30	44	26	10	6	38
90°	0	0	0	0	0	



TEST NUMBER: P475352

CATALOG NUMBER: 14CZ2-29-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	978.3	978.3	978.3	978.3	978.3
2.5°	981.6	978.7	972.6	978.7	977.3
5°	977.3	975.0	968.8	975.9	974.5
7.5°	970.2	968.3	963.6	971.2	969.8
10°	960.3	958.9	955.6	964.1	963.1
12.5°	946.6	947.1	945.2	955.6	954.6
15°	931.0	931.0	932.4	944.3	944.3
17.5°	912.6	913.5	916.4	932.0	932.4
20°	891.8	894.2	900.3	916.4	919.2
22.5°	869.6	872.5	881.0	899.8	904.1
25°	843.6	848.4	860.2	881.9	885.7
27.5°	816.2	823.3	838.0	861.6	866.3
30°	787.9	795.5	813.9	839.4	846.0
32.5°	757.2	767.1	789.3	816.2	823.8
35°	725.5	736.4	761.9	792.2	800.2
37.5°	693.9	705.7	734.5	767.1	775.1
40°	660.4	674.1	705.7	739.2	750.1
42.5°	624.9	640.1	675.0	711.8	722.2
45°	589.5	607.0	645.2	683.5	693.9
47.5°	555.0	573.0	614.5	654.2	665.1
50°	517.7	538.5	583.8	623.0	636.7
52.5°	481.3	504.5	552.2	591.9	605.6
55°	444.5	468.6	518.7	558.8	573.0
57.5°	408.6	434.1	487.0	526.7	536.6
60°	370.3	398.2	451.6	491.7	503.1
62.5°	334.4	363.2	417.1	455.8	466.7
65°	297.1	327.8	380.7	418.0	426.1
67.5°	262.2	292.9	346.2	378.4	386.4
70°	223.9	257.9	309.9	337.3	338.2
72.5°	187.5	222.0	272.6	290.0	287.7
75°	150.2	188.0	231.5	234.8	229.6
77.5°	116.7	154.5	184.2	173.8	163.4
80°	84.6	121.4	129.9	113.8	104.9
82.5°	55.7	85.0	78.4	56.2	48.2
85°	29.8	43.5	25.5	10.4	6.1
87.5°	11.3	7.6	2.8	2.4	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)