

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: P474797

Luminaire Tested: **22CZ2-29HE-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474797
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2981.9 lumens
Efficiency: N/A
Efficacy: 142.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

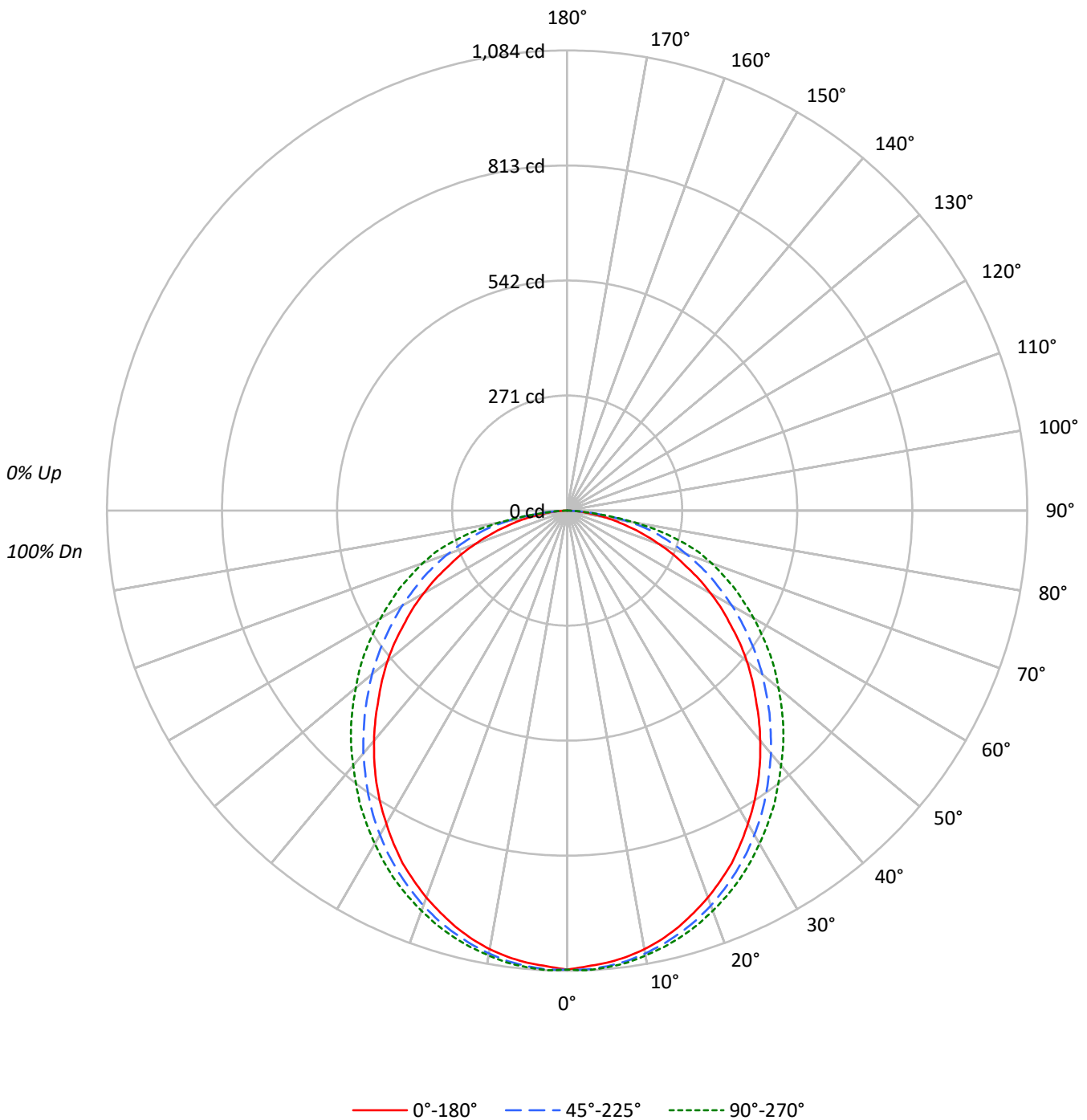
Input Watts (W): 20.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474797

CATALOG NUMBER: 22CZ2-29HE-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474797

CATALOG NUMBER: 22CZ2-29HE-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	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	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°	2910	2910	2910
5°	2889	2911	2918
10°	2867	2895	2908
15°	2828	2869	2895
20°	2777	2835	2873
25°	2722	2792	2850
30°	2647	2741	2816
35°	2573	2683	2788
40°	2486	2623	2754
45°	2391	2564	2741
50°	2314	2511	2720
55°	2206	2457	2726
60°	2106	2415	2733
65°	1958	2383	2777
70°	1810	2350	2846
75°	1619	2339	2863
80°	1358	2218	2500
85°	1050	1519	1420



TEST NUMBER: P474797

CATALOG NUMBER: 22CZ2-29HE-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.2	3.4
10°-20°	290.0	9.7
20°-30°	432.4	14.5
30°-40°	510.5	17.1
40°-50°	520.3	17.4
50°-60°	469.2	15.7
60°-70°	368.8	12.4
70°-80°	230.9	7.7
80°-90°	57.6	1.9
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°	824.6	27.7
0°-40°	1335.1	44.8
0°-60°	2324.6	78.0
0°-90°	2981.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2981.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1081	1081	1081	1081	1081	
5°	1069	1072	1078	1080	1080	101
15°	1015	1020	1030	1037	1039	286
25°	917	924	940	955	960	422
35°	783	793	817	839	849	489
45°	628	642	674	706	720	486
55°	470	485	524	564	581	422
65°	308	326	374	416	436	307
75°	156	179	225	265	275	165
85°	34	44	49	49	46	41
90°	0	0	0	0	0	



TEST NUMBER: P474797

CATALOG NUMBER: 22CZ2-29HE-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1081.4	1081.4	1081.4	1081.4	1081.4
2.5°	1074.5	1077.0	1082.0	1083.9	1083.9
5°	1069.4	1071.9	1077.6	1080.1	1080.1
7.5°	1061.2	1063.7	1070.7	1073.8	1074.5
10°	1049.2	1052.4	1059.3	1064.4	1064.4
12.5°	1034.1	1037.3	1046.1	1052.4	1053.0
15°	1015.2	1019.6	1029.7	1037.3	1039.2
17.5°	993.2	1000.1	1011.4	1020.9	1022.8
20°	969.8	976.8	990.0	1000.7	1003.2
22.5°	944.0	950.3	966.1	979.3	982.4
25°	916.9	923.8	940.2	954.7	959.8
27.5°	884.8	893.0	912.5	928.9	933.9
30°	852.0	862.1	882.2	900.5	906.2
32.5°	818.6	828.1	850.7	870.3	877.8
35°	783.3	793.4	816.7	839.4	848.8
37.5°	746.1	756.2	781.4	807.3	816.1
40°	707.7	719.7	746.8	774.5	783.9
42.5°	668.6	681.2	709.6	740.5	753.1
45°	628.3	642.2	673.7	706.4	720.3
47.5°	591.7	603.1	635.8	671.8	685.0
50°	552.7	563.4	599.9	635.8	649.7
52.5°	513.0	523.0	562.1	599.9	616.9
55°	470.1	484.6	523.7	564.0	581.0
57.5°	432.3	445.5	485.9	526.8	543.2
60°	391.3	405.2	448.7	490.3	507.9
62.5°	350.4	365.5	409.6	454.4	470.7
65°	307.5	326.4	374.3	415.9	436.1
67.5°	271.0	289.3	336.5	380.0	397.6
70°	230.0	251.4	298.7	342.8	361.7
72.5°	191.6	213.0	261.5	305.6	324.5
75°	155.7	179.0	225.0	265.3	275.4
77.5°	121.0	143.1	189.1	212.4	223.1
80°	87.6	109.0	143.1	158.8	161.3
82.5°	59.2	77.5	97.0	101.5	98.9
85°	34.0	43.5	49.2	49.2	46.0
87.5°	13.9	13.9	12.0	7.6	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)