

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: P474929

Luminaire Tested: **22CZ2-85VHE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474929
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-S-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8738.8 lumens
Efficiency: N/A
Efficacy: 138.5 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

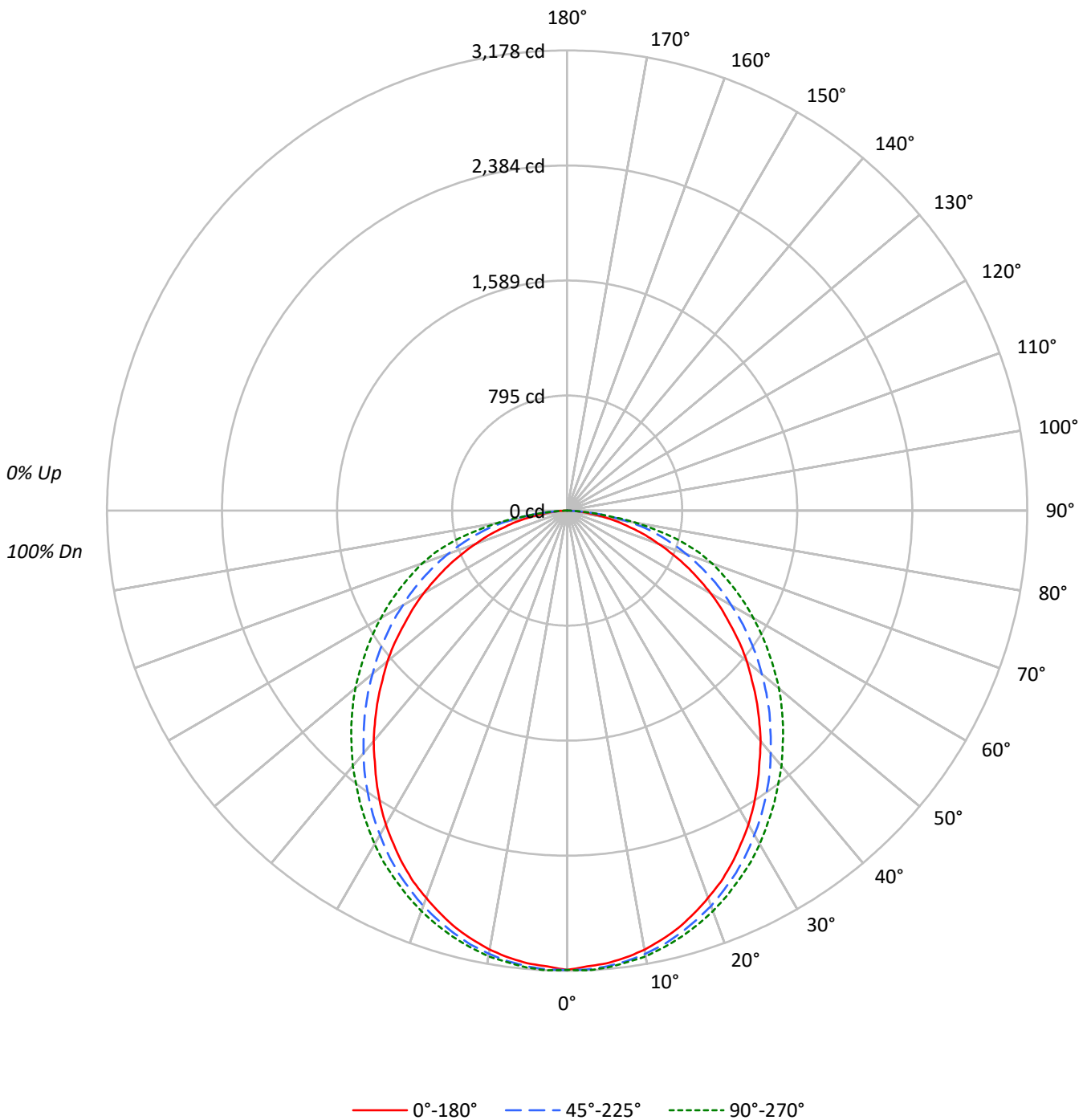
Input Watts (W): 63.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474929

CATALOG NUMBER: 22CZ2-85VHE-S-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474929

CATALOG NUMBER: 22CZ2-85VHE-S-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	88	86	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	74	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	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8536	8536	8536
5°	8478	8535	8558
10°	8414	8495	8541
15°	8307	8419	8490
20°	8151	8321	8430
25°	7987	8194	8345
30°	7780	8037	8267
35°	7538	7871	8163
40°	7302	7681	8090
45°	7034	7517	8024
50°	6782	7348	7995
55°	6459	7203	7957
60°	6169	7057	7990
65°	5791	6975	8106
70°	5291	6888	8369
75°	4749	6838	8377
80°	3998	6456	7440
85°	3004	4375	4048



TEST NUMBER: P474929

CATALOG NUMBER: 22CZ2-85VHE-S-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.6	3.4
10°-20°	850.9	9.7
20°-30°	1268.6	14.5
30°-40°	1497.0	17.1
40°-50°	1525.2	17.5
50°-60°	1375.5	15.7
60°-70°	1080.2	12.4
70°-80°	675.3	7.7
80°-90°	166.5	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°	2419.2	27.7
0°-40°	3916.1	44.8
0°-60°	6816.8	78.0
0°-90°	8738.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8738.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3172	3172	3172	3172	3172	
5°	3138	3145	3160	3166	3168	298
15°	2982	2992	3022	3043	3047	840
25°	2690	2705	2760	2800	2811	1238
35°	2295	2326	2396	2462	2485	1435
45°	1848	1880	1975	2070	2108	1426
55°	1377	1421	1535	1654	1696	1235
65°	909	958	1096	1218	1273	898
75°	457	520	658	770	806	488
85°	97	125	142	140	131	118
90°	0	0	0	0	0	



TEST NUMBER: P474929

CATALOG NUMBER: 22CZ2-85VHE-S-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3172.2	3172.2	3172.2	3172.2	3172.2
2.5°	3151.0	3157.4	3172.2	3178.5	3178.5
5°	3138.4	3144.7	3159.5	3165.9	3168.0
7.5°	3113.0	3121.4	3138.4	3146.8	3146.8
10°	3079.1	3089.7	3108.8	3121.4	3125.7
12.5°	3032.6	3045.3	3070.7	3085.5	3089.7
15°	2981.9	2992.4	3022.0	3043.2	3047.4
17.5°	2916.3	2933.2	2964.9	2992.4	2998.8
20°	2846.5	2865.5	2905.7	2937.5	2943.8
22.5°	2774.6	2789.4	2833.8	2871.9	2880.4
25°	2690.0	2704.8	2759.8	2800.0	2810.6
27.5°	2597.0	2622.3	2677.3	2723.9	2740.8
30°	2503.9	2529.3	2586.4	2641.4	2660.4
32.5°	2402.4	2429.9	2495.5	2552.6	2571.6
35°	2294.6	2326.3	2396.1	2461.6	2484.9
37.5°	2182.5	2218.4	2296.7	2366.5	2391.8
40°	2078.8	2104.2	2186.7	2267.1	2303.0
42.5°	1962.5	1996.4	2078.8	2169.8	2203.6
45°	1848.3	1880.1	1975.2	2070.4	2108.5
47.5°	1729.9	1770.1	1865.3	1971.0	2009.1
50°	1619.9	1653.8	1755.3	1867.4	1909.7
52.5°	1501.5	1537.5	1647.4	1763.7	1801.8
55°	1376.7	1421.1	1535.3	1653.8	1696.1
57.5°	1262.5	1304.8	1425.4	1548.0	1592.4
60°	1146.2	1188.5	1311.2	1435.9	1484.6
62.5°	1023.6	1072.2	1205.4	1326.0	1381.0
65°	909.4	958.0	1095.5	1218.1	1273.1
67.5°	788.8	845.9	983.4	1112.4	1167.4
70°	672.5	740.2	875.5	1002.4	1063.7
72.5°	568.9	623.9	765.6	898.8	949.5
75°	456.8	520.2	657.7	769.8	805.7
77.5°	361.6	416.6	547.7	621.8	645.0
80°	258.0	319.3	416.6	461.0	480.1
82.5°	171.3	222.1	283.4	291.8	287.6
85°	97.3	124.8	141.7	139.6	131.1
87.5°	38.1	42.3	31.7	19.0	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)