

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: P474043

Luminaire Tested: **24CZ2-95VHE-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474043
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-S-UNV-L835-CD1-U
Description: 2'X4' 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: 9733.9 lumens
Efficiency: N/A
Efficacy: 144.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

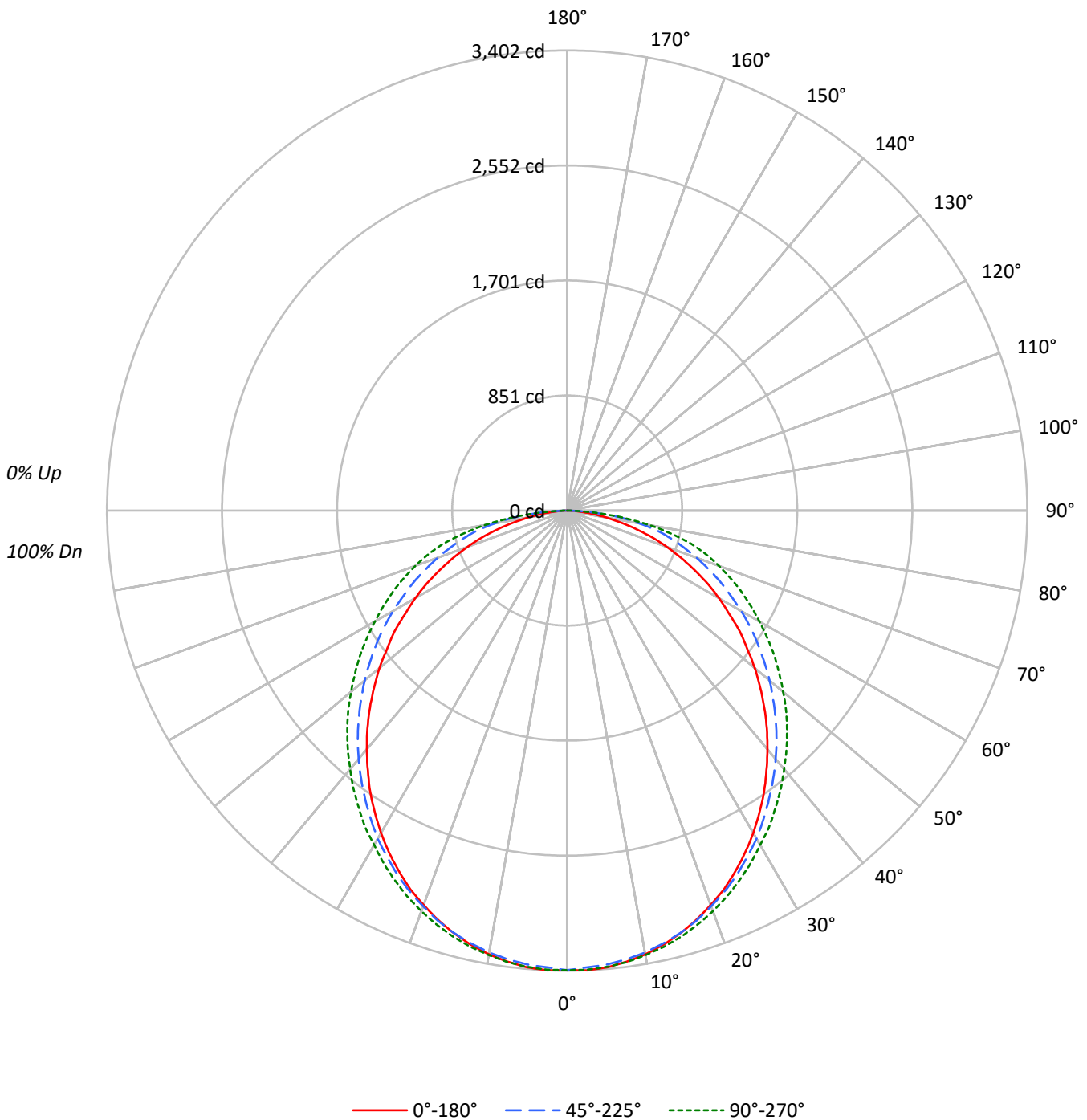
Input Watts (W): 67.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474043

CATALOG NUMBER: 24CZ2-95VHE-S-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474043

CATALOG NUMBER: 24CZ2-95VHE-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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4571	4571	4571
5°	4578	4550	4574
10°	4552	4533	4559
15°	4506	4503	4541
20°	4444	4457	4512
25°	4370	4408	4477
30°	4277	4352	4434
35°	4170	4275	4409
40°	4047	4212	4384
45°	3925	4147	4375
50°	3792	4090	4364
55°	3657	4039	4388
60°	3489	4001	4419
65°	3304	3986	4525
70°	3082	4007	4686
75°	2743	4122	4937
80°	2242	4212	4819
85°	1579	3677	3751



TEST NUMBER: P474043

CATALOG NUMBER: 24CZ2-95VHE-S-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.2	3.3
10°-20°	914.8	9.4
20°-30°	1371.3	14.1
30°-40°	1633.3	16.8
40°-50°	1684.1	17.3
50°-60°	1536.7	15.8
60°-70°	1228.8	12.6
70°-80°	802.6	8.2
80°-90°	241.0	2.5
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°	2607.4	26.8
0°-40°	4240.7	43.6
0°-60°	7461.5	76.7
0°-90°	9733.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9733.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3398	3398	3398	3398	3398	
5°	3390	3383	3369	3390	3386	322
15°	3234	3236	3233	3260	3260	912
25°	2944	2948	2969	3012	3016	1355
35°	2539	2557	2603	2668	2684	1586
45°	2062	2099	2179	2270	2299	1591
55°	1559	1604	1722	1836	1871	1388
65°	1038	1108	1252	1375	1421	1029
75°	528	616	793	921	950	561
85°	102	184	238	243	243	130
90°	0	0	0	0	0	



TEST NUMBER: P474043

CATALOG NUMBER: 24CZ2-95VHE-S-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3397.6	3397.6	3397.6	3397.6	3397.6
2.5°	3402.4	3397.6	3380.0	3400.8	3397.6
5°	3389.6	3383.2	3368.8	3389.6	3386.4
7.5°	3364.0	3360.8	3346.4	3370.4	3367.2
10°	3332.0	3328.8	3317.6	3341.6	3336.8
12.5°	3287.3	3285.7	3277.7	3306.4	3303.2
15°	3234.5	3236.1	3232.9	3260.1	3260.1
17.5°	3173.7	3172.1	3178.5	3212.1	3208.9
20°	3103.4	3105.0	3113.0	3151.4	3151.4
22.5°	3029.8	3028.2	3045.8	3084.2	3087.4
25°	2943.5	2948.3	2969.1	3012.3	3015.5
27.5°	2850.8	2858.8	2884.3	2933.9	2938.7
30°	2753.2	2762.8	2801.2	2847.6	2854.0
32.5°	2646.1	2666.9	2702.1	2761.2	2777.2
35°	2539.0	2556.6	2602.9	2668.5	2684.5
37.5°	2420.7	2449.5	2502.2	2574.2	2594.9
40°	2304.0	2332.7	2398.3	2473.4	2495.8
42.5°	2185.6	2216.0	2291.2	2375.9	2399.9
45°	2062.5	2099.3	2179.2	2270.4	2299.2
47.5°	1936.2	1979.4	2065.7	2164.9	2196.8
50°	1811.5	1854.7	1953.8	2056.1	2084.9
52.5°	1677.2	1731.6	1837.1	1947.4	1976.2
55°	1558.9	1603.7	1722.0	1835.5	1870.7
57.5°	1419.8	1480.5	1606.9	1722.0	1755.5
60°	1296.7	1352.6	1486.9	1603.7	1642.0
62.5°	1172.0	1229.5	1363.8	1496.5	1531.7
65°	1037.7	1108.0	1251.9	1375.0	1421.4
67.5°	909.8	983.3	1130.4	1261.5	1309.5
70°	783.4	858.6	1018.5	1152.8	1191.2
72.5°	658.7	737.1	903.4	1034.5	1079.2
75°	527.6	615.6	793.0	920.9	949.7
77.5°	404.5	502.0	681.1	767.5	788.2
80°	289.4	396.5	543.6	606.0	622.0
82.5°	190.3	294.2	406.1	439.7	434.9
85°	102.3	183.9	238.2	243.0	243.0
87.5°	40.0	73.5	75.1	57.6	54.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)