

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: P473854

Luminaire Tested: **24CZ2-150VHE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473854
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15027.8 lumens
Efficiency: N/A
Efficacy: 137.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

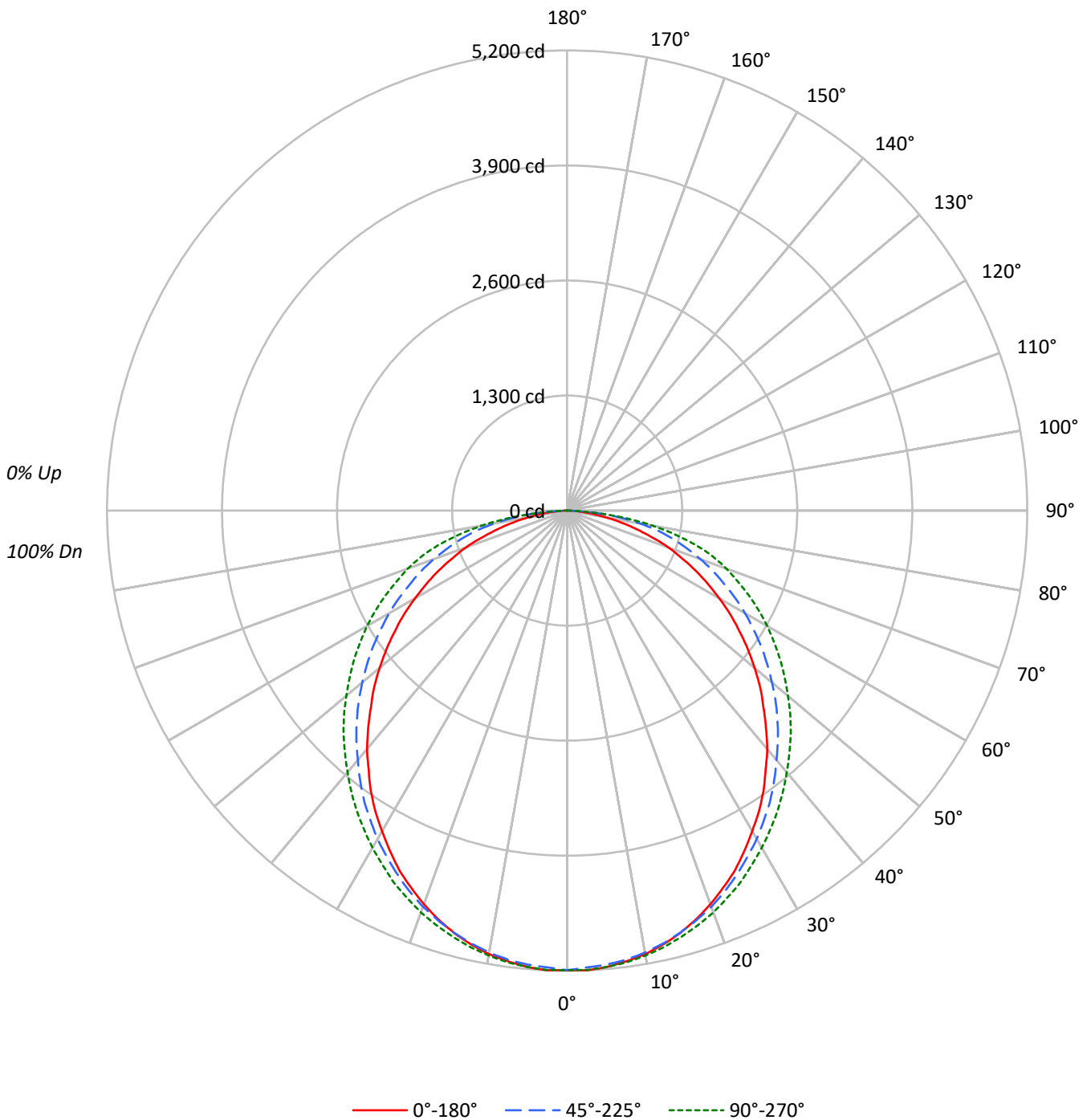
Input Watts (W): 109.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P473854

CATALOG NUMBER: 24CZ2-150VHE-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P473854

CATALOG NUMBER: 24CZ2-150VHE-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	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6987	6987	6987
5°	6991	6955	6991
10°	6952	6929	6976
15°	6882	6879	6946
20°	6779	6820	6918
25°	6661	6736	6884
30°	6499	6657	6835
35°	6353	6572	6807
40°	6179	6464	6780
45°	5969	6398	6800
50°	5788	6327	6820
55°	5575	6282	6897
60°	5344	6252	7023
65°	5094	6230	7204
70°	4794	6294	7535
75°	4216	6424	7838
80°	3518	6471	7562
85°	2512	5547	5622



TEST NUMBER: P473854

CATALOG NUMBER: 24CZ2-150VHE-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	490.9	3.3
10°-20°	1398.3	9.3
20°-30°	2097.7	14.0
30°-40°	2504.4	16.7
40°-50°	2594.1	17.3
50°-60°	2388.2	15.9
60°-70°	1926.4	12.8
70°-80°	1258.7	8.4
80°-90°	369.0	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°	3986.9	26.5
0°-40°	6491.3	43.2
0°-60°	11473.6	76.3
0°-90°	15027.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15027.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5193	5193	5193	5193	5193	
5°	5176	5171	5149	5178	5176	491
15°	4940	4940	4938	4987	4987	1392
25°	4486	4496	4538	4620	4637	2063
35°	3868	3902	4001	4110	4144	2416
45°	3137	3214	3362	3513	3574	2425
55°	2377	2479	2678	2874	2940	2127
65°	1600	1709	1957	2180	2263	1582
75°	811	964	1236	1449	1508	865
85°	163	282	359	381	364	202
90°	0	0	0	0	0	



TEST NUMBER: P473854

CATALOG NUMBER: 24CZ2-150VHE-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5193.0	5193.0	5193.0	5193.0	5193.0
2.5°	5200.3	5193.0	5166.3	5197.9	5195.5
5°	5176.0	5171.2	5149.3	5178.5	5176.0
7.5°	5137.2	5134.8	5117.8	5149.3	5149.3
10°	5088.6	5083.8	5071.6	5108.1	5105.6
12.5°	5020.7	5018.2	5011.0	5054.7	5052.2
15°	4940.5	4940.5	4938.1	4986.7	4986.7
17.5°	4843.4	4845.9	4855.6	4911.4	4913.8
20°	4734.2	4743.9	4763.3	4826.4	4831.3
22.5°	4610.4	4629.8	4656.5	4726.9	4734.2
25°	4486.5	4496.3	4537.5	4620.1	4637.1
27.5°	4336.0	4360.3	4413.7	4498.7	4515.7
30°	4183.1	4217.1	4285.0	4372.4	4399.1
32.5°	4032.6	4061.7	4141.8	4241.3	4272.9
35°	3867.5	3901.5	4001.0	4110.2	4144.2
37.5°	3685.4	3738.8	3843.2	3969.4	4005.8
40°	3517.9	3566.4	3680.5	3821.3	3860.2
42.5°	3326.1	3386.8	3525.1	3668.4	3716.9
45°	3136.7	3214.4	3362.5	3513.0	3573.7
47.5°	2959.5	3022.6	3197.4	3367.3	3420.8
50°	2765.2	2838.1	3022.6	3202.3	3258.1
52.5°	2573.5	2660.9	2847.8	3037.2	3097.9
55°	2376.8	2478.8	2677.8	2874.5	2940.0
57.5°	2187.4	2289.4	2495.8	2704.6	2772.5
60°	1985.9	2095.2	2323.4	2524.9	2609.9
62.5°	1791.7	1901.0	2141.3	2359.8	2439.9
65°	1599.9	1709.2	1956.8	2180.2	2262.7
67.5°	1400.8	1519.8	1784.4	2000.5	2080.6
70°	1218.7	1332.9	1599.9	1830.6	1915.5
72.5°	1010.0	1145.9	1417.8	1646.0	1726.2
75°	810.9	963.8	1235.7	1449.4	1507.7
77.5°	626.4	779.3	1051.2	1211.5	1247.9
80°	454.0	609.4	835.2	946.8	976.0
82.5°	293.8	454.0	604.5	679.8	689.5
85°	162.7	281.6	359.3	381.2	364.2
87.5°	58.3	106.8	104.4	85.0	68.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)