

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: P474647

Luminaire Tested: **24CZ2-115VHE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474647
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-115VHE-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10935.1 lumens
Efficiency: N/A
Efficacy: 135.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

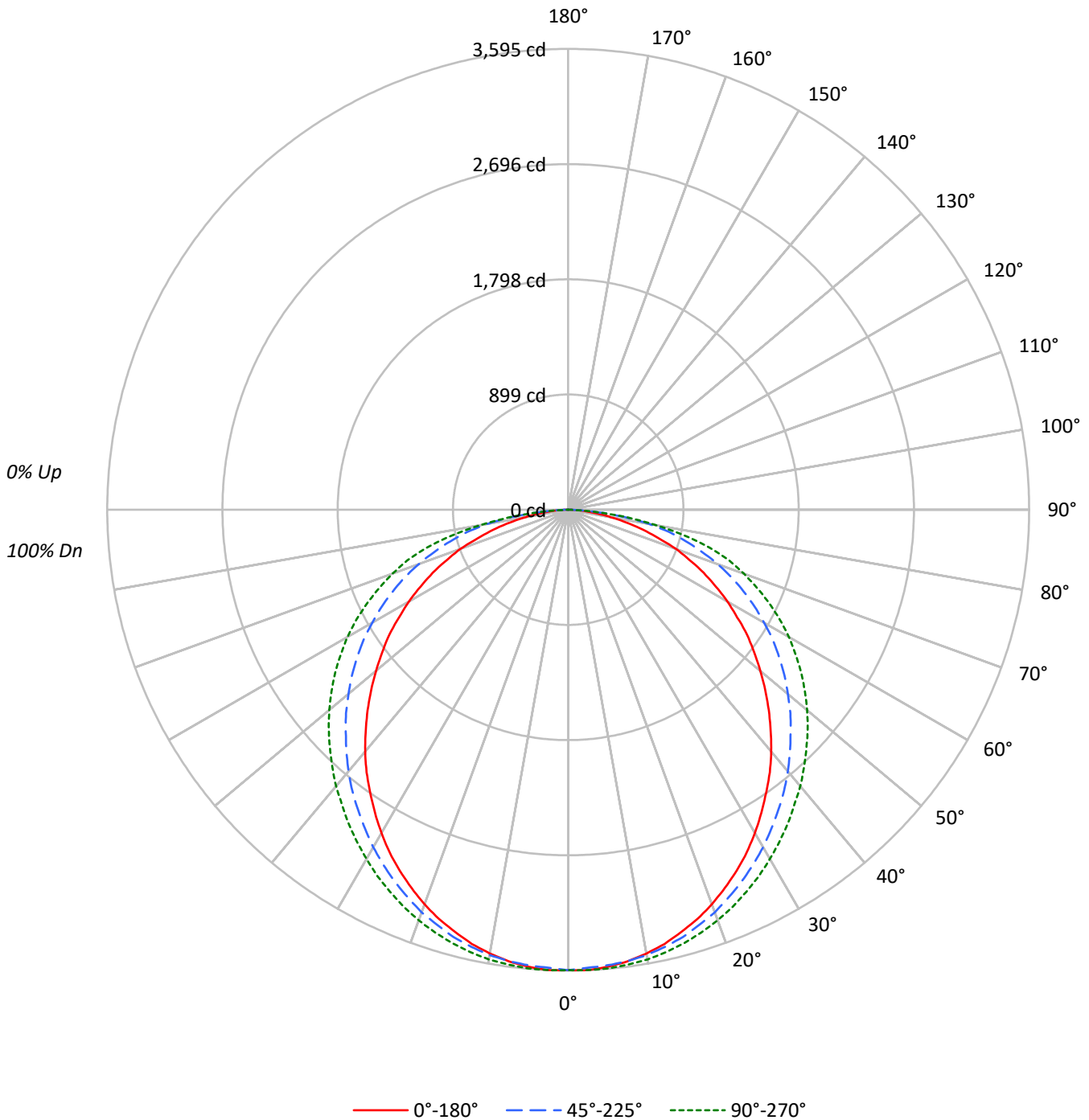
Input Watts (W): 80.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9665	9665	9665
5°	9665	9636	9702
10°	9605	9638	9733
15°	9500	9617	9748
20°	9380	9570	9761
25°	9228	9503	9762
30°	9049	9445	9777
35°	8844	9389	9814
40°	8653	9359	9893
45°	8417	9334	9999
50°	8191	9362	10181
55°	8000	9426	10409
60°	7728	9496	10700
65°	7420	9611	11024
70°	7038	9745	11464
75°	6303	9881	11842
80°	5306	9909	10749
85°	3937	7497	7067



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.4	3.1
10°-20°	975.5	8.9
20°-30°	1476.7	13.5
30°-40°	1786.4	16.3
40°-50°	1885.7	17.2
50°-60°	1778.2	16.3
60°-70°	1466.0	13.4
70°-80°	961.7	8.8
80°-90°	264.4	2.4
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°	2792.6	25.5
0°-40°	4579.0	41.9
0°-60°	8242.9	75.4
0°-90°	10935.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10935.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3592	3592	3592	3592	3592	
5°	3578	3578	3567	3592	3592	340
15°	3410	3429	3452	3492	3499	962
25°	3108	3146	3200	3267	3288	1431
35°	2692	2762	2858	2956	2987	1685
45°	2212	2311	2453	2584	2628	1707
55°	1705	1826	2009	2159	2219	1519
65°	1165	1305	1509	1670	1731	1151
75°	606	762	950	1101	1139	641
85°	128	220	243	236	229	158
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3591.8	3591.8	3591.8	3591.8	3591.8
2.5°	3595.3	3591.8	3576.1	3597.1	3595.3
5°	3577.9	3577.9	3567.4	3591.8	3591.8
7.5°	3553.4	3555.2	3551.7	3579.6	3579.6
10°	3515.0	3522.0	3527.2	3558.6	3562.1
12.5°	3469.6	3481.8	3492.3	3530.7	3534.2
15°	3410.2	3429.4	3452.1	3492.3	3499.2
17.5°	3349.0	3371.7	3396.2	3448.6	3457.3
20°	3275.6	3301.8	3342.0	3394.4	3408.4
22.5°	3193.5	3230.2	3272.1	3335.0	3352.5
25°	3107.9	3146.4	3200.5	3266.9	3287.9
27.5°	3015.3	3060.8	3121.9	3198.8	3221.5
30°	2912.3	2964.7	3039.8	3121.9	3146.4
32.5°	2803.9	2865.1	2948.9	3039.8	3067.7
35°	2692.1	2762.0	2858.1	2955.9	2987.4
37.5°	2582.1	2652.0	2765.5	2868.6	2898.3
40°	2463.3	2540.1	2664.2	2774.2	2816.2
42.5°	2337.5	2428.3	2559.4	2681.7	2721.8
45°	2211.7	2311.3	2452.8	2583.8	2627.5
47.5°	2084.2	2194.2	2349.7	2482.5	2533.2
50°	1956.6	2073.7	2236.2	2379.4	2431.8
52.5°	1827.4	1949.7	2126.1	2278.1	2325.3
55°	1705.1	1825.6	2009.1	2159.3	2218.7
57.5°	1563.6	1699.8	1893.8	2045.7	2103.4
60°	1436.0	1568.8	1764.5	1925.2	1988.1
62.5°	1298.0	1434.3	1640.4	1801.2	1862.3
65°	1165.3	1305.0	1509.4	1670.1	1731.3
67.5°	1022.0	1168.7	1378.4	1533.9	1593.3
70°	894.5	1032.5	1238.6	1397.6	1457.0
72.5°	739.0	896.2	1093.6	1250.9	1315.5
75°	606.2	761.7	950.4	1100.6	1139.0
77.5°	466.5	621.9	808.9	906.7	932.9
80°	342.4	489.2	639.4	691.8	693.6
82.5°	230.6	359.9	445.5	471.7	468.2
85°	127.5	220.1	242.8	235.8	228.9
87.5°	52.4	73.4	59.4	41.9	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)