

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: P474744

Luminaire Tested: **24CZ2-100VHE-SQR-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474744
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-SQR-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9688.8 lumens
Efficiency: N/A
Efficacy: 136.3 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

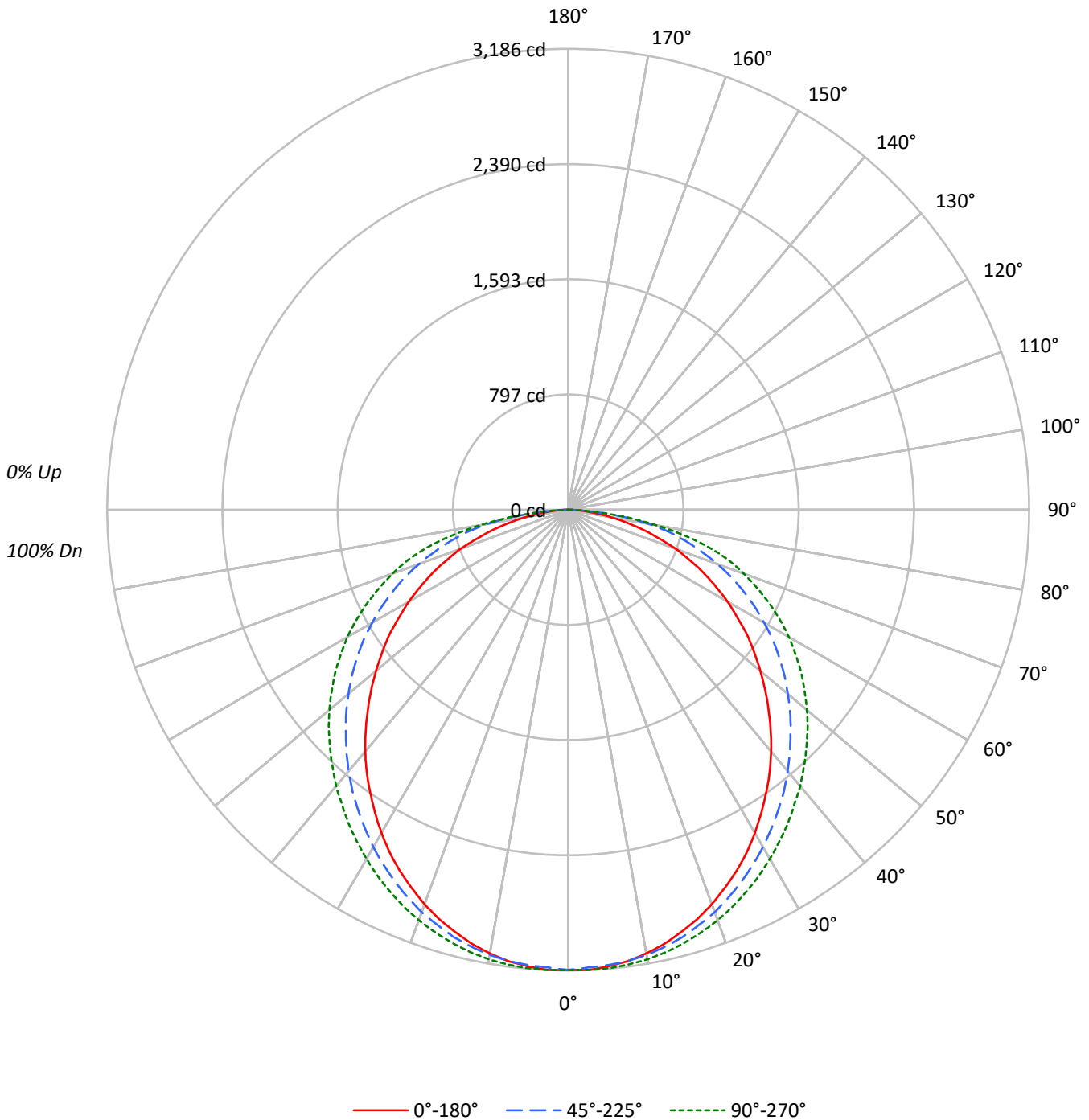
Input Watts (W): 71.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	8564	8564	8564
5°	8563	8538	8597
10°	8510	8540	8624
15°	8418	8521	8637
20°	8311	8480	8648
25°	8176	8420	8649
30°	8018	8369	8662
35°	7836	8319	8695
40°	7667	8292	8765
45°	7457	8270	8859
50°	7258	8295	9020
55°	7088	8351	9223
60°	6848	8414	9480
65°	6574	8516	9768
70°	6235	8635	10157
75°	5584	8755	10493
80°	4702	8779	9523
85°	3489	6644	6262



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.6	3.1
10°-20°	864.3	8.9
20°-30°	1308.4	13.5
30°-40°	1582.8	16.3
40°-50°	1670.8	17.2
50°-60°	1575.5	16.3
60°-70°	1298.9	13.4
70°-80°	852.1	8.8
80°-90°	234.3	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°	2474.3	25.5
0°-40°	4057.1	41.9
0°-60°	7303.4	75.4
0°-90°	9688.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9688.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3182	3182	3182	3182	3182	
5°	3170	3170	3161	3182	3182	301
15°	3022	3038	3059	3094	3100	852
25°	2754	2788	2836	2895	2913	1268
35°	2385	2447	2532	2619	2647	1493
45°	1960	2048	2173	2289	2328	1512
55°	1511	1618	1780	1913	1966	1346
65°	1032	1156	1337	1480	1534	1019
75°	537	675	842	975	1009	568
85°	113	195	215	209	203	140
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3182.5	3182.5	3182.5	3182.5	3182.5
2.5°	3185.6	3182.5	3168.5	3187.1	3185.6
5°	3170.1	3170.1	3160.8	3182.5	3182.5
7.5°	3148.4	3150.0	3146.9	3171.6	3171.6
10°	3114.4	3120.5	3125.2	3153.1	3156.1
12.5°	3074.1	3084.9	3094.2	3128.3	3131.4
15°	3021.5	3038.5	3058.6	3094.2	3100.4
17.5°	2967.3	2987.4	3009.1	3055.5	3063.3
20°	2902.3	2925.5	2961.1	3007.6	3019.9
22.5°	2829.5	2862.0	2899.2	2954.9	2970.4
25°	2753.7	2787.8	2835.7	2894.6	2913.1
27.5°	2671.7	2711.9	2766.1	2834.2	2854.3
30°	2580.3	2626.8	2693.3	2766.1	2787.8
32.5°	2484.4	2538.5	2612.8	2693.3	2718.1
35°	2385.3	2447.2	2532.3	2619.0	2646.9
37.5°	2287.8	2349.7	2450.3	2541.6	2567.9
40°	2182.5	2250.6	2360.5	2458.0	2495.2
42.5°	2071.1	2151.6	2267.7	2376.0	2411.6
45°	1959.6	2047.9	2173.2	2289.3	2328.0
47.5°	1846.6	1944.2	2081.9	2199.6	2244.4
50°	1733.6	1837.3	1981.3	2108.2	2154.7
52.5°	1619.1	1727.4	1883.8	2018.4	2060.2
55°	1510.7	1617.5	1780.1	1913.2	1965.8
57.5°	1385.4	1506.1	1677.9	1812.6	1863.7
60°	1272.4	1390.0	1563.4	1705.8	1761.5
62.5°	1150.1	1270.8	1453.5	1595.9	1650.1
65°	1032.4	1156.3	1337.4	1479.8	1534.0
67.5°	905.5	1035.5	1221.3	1359.0	1411.7
70°	792.5	914.8	1097.5	1238.3	1290.9
72.5°	654.8	794.1	969.0	1108.3	1165.6
75°	537.1	674.9	842.1	975.2	1009.2
77.5°	413.3	551.0	716.7	803.4	826.6
80°	303.4	433.4	566.5	613.0	614.5
82.5°	204.3	318.9	394.7	417.9	414.8
85°	113.0	195.0	215.2	209.0	202.8
87.5°	46.4	65.0	52.6	37.1	29.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)