

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: P474642

Luminaire Tested: **24CZ2-90VHE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474642
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-90VHE-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: 8625.6 lumens
Efficiency: N/A
Efficacy: 134.6 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

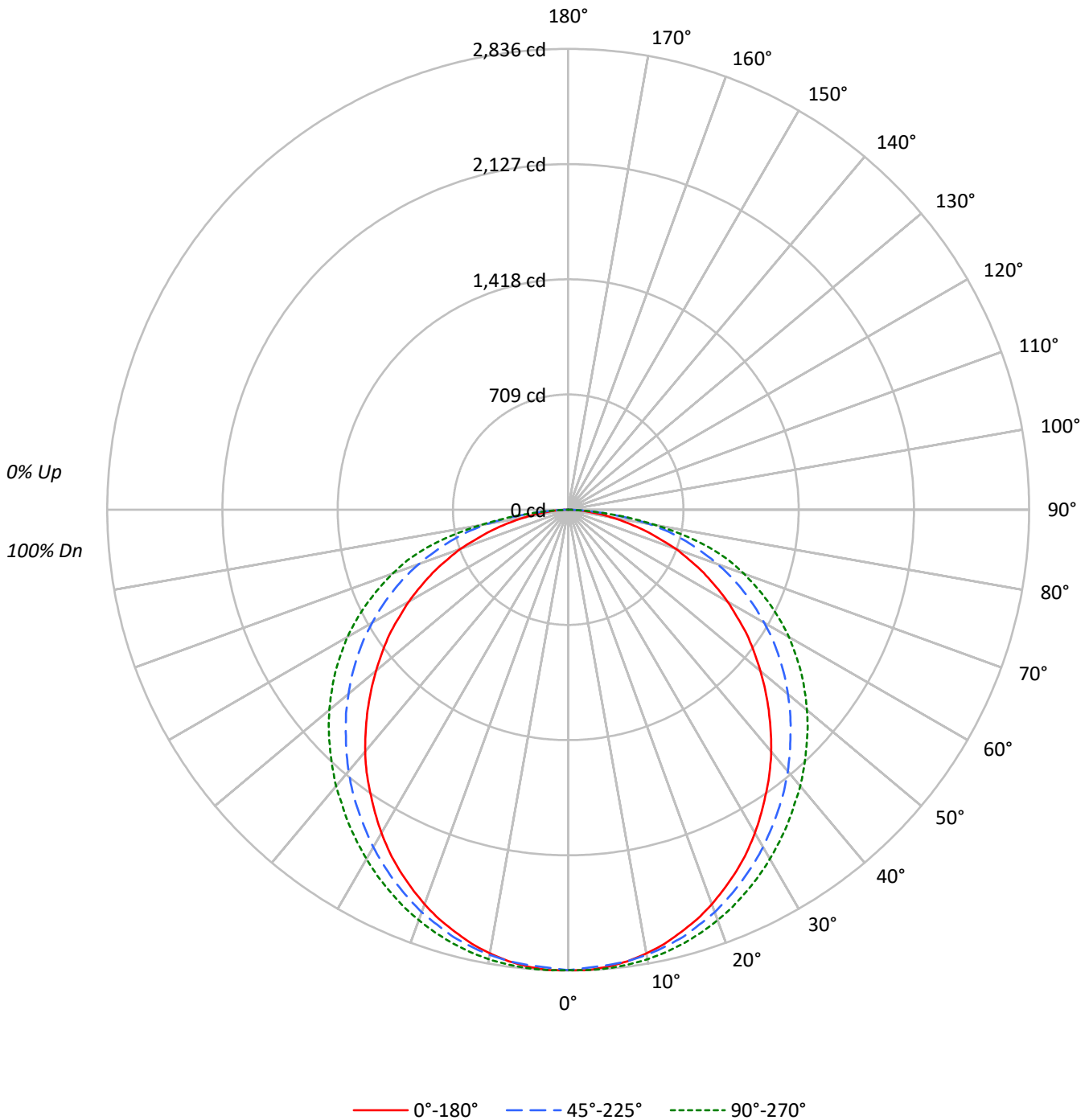
Input Watts (W): 64.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	7624	7624	7624
5°	7623	7601	7653
10°	7576	7602	7678
15°	7494	7586	7690
20°	7399	7549	7699
25°	7279	7496	7700
30°	7138	7451	7712
35°	6976	7406	7741
40°	6825	7382	7803
45°	6639	7363	7887
50°	6461	7384	8030
55°	6310	7435	8211
60°	6096	7491	8440
65°	5852	7581	8695
70°	5551	7687	9043
75°	4972	7794	9342
80°	4186	7817	8478
85°	3106	5913	5573



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.5	3.1
10°-20°	769.5	8.9
20°-30°	1164.8	13.5
30°-40°	1409.1	16.3
40°-50°	1487.4	17.2
50°-60°	1402.6	16.3
60°-70°	1156.4	13.4
70°-80°	758.6	8.8
80°-90°	208.6	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°	2202.8	25.5
0°-40°	3611.9	41.9
0°-60°	6502.0	75.4
0°-90°	8625.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8625.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2833	2833	2833	2833	2833	
5°	2822	2822	2814	2833	2833	268
15°	2690	2705	2723	2755	2760	759
25°	2452	2482	2524	2577	2593	1129
35°	2124	2179	2254	2332	2356	1329
45°	1745	1823	1935	2038	2072	1346
55°	1345	1440	1585	1703	1750	1198
65°	919	1029	1191	1317	1366	908
75°	478	601	750	868	898	505
85°	101	174	192	186	180	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2833.2	2833.2	2833.2	2833.2	2833.2
2.5°	2836.0	2833.2	2820.8	2837.4	2836.0
5°	2822.2	2822.2	2813.9	2833.2	2833.2
7.5°	2802.9	2804.3	2801.5	2823.6	2823.6
10°	2772.6	2778.1	2782.2	2807.0	2809.8
12.5°	2736.8	2746.4	2754.7	2785.0	2787.7
15°	2689.9	2705.1	2723.0	2754.7	2760.2
17.5°	2641.7	2659.6	2678.9	2720.2	2727.1
20°	2583.8	2604.5	2636.2	2677.5	2688.5
22.5°	2519.0	2548.0	2581.0	2630.6	2644.4
25°	2451.5	2481.8	2524.5	2576.9	2593.4
27.5°	2378.5	2414.3	2462.5	2523.2	2541.1
30°	2297.2	2338.5	2397.8	2462.5	2481.8
32.5°	2211.7	2260.0	2326.1	2397.8	2419.8
35°	2123.5	2178.7	2254.4	2331.6	2356.4
37.5°	2036.7	2091.8	2181.4	2262.7	2286.1
40°	1943.0	2003.6	2101.5	2188.3	2221.4
42.5°	1843.8	1915.5	2018.8	2115.3	2147.0
45°	1744.6	1823.1	1934.7	2038.1	2072.5
47.5°	1644.0	1730.8	1853.4	1958.2	1998.1
50°	1543.4	1635.7	1763.9	1876.9	1918.2
52.5°	1441.4	1537.9	1677.1	1796.9	1834.1
55°	1345.0	1440.0	1584.7	1703.2	1750.1
57.5°	1233.3	1340.8	1493.8	1613.7	1659.1
60°	1132.7	1237.5	1391.8	1518.6	1568.2
62.5°	1023.9	1131.4	1294.0	1420.7	1469.0
65°	919.1	1029.4	1190.6	1317.4	1365.6
67.5°	806.1	921.9	1087.3	1209.9	1256.8
70°	705.5	814.4	977.0	1102.4	1149.3
72.5°	582.9	706.9	862.6	986.7	1037.7
75°	478.2	600.8	749.6	868.2	898.5
77.5°	367.9	490.6	638.0	715.2	735.9
80°	270.1	385.8	504.4	545.7	547.1
82.5°	181.9	283.9	351.4	372.1	369.3
85°	100.6	173.6	191.5	186.0	180.5
87.5°	41.3	57.9	46.9	33.1	26.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)