

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: P474693

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474693
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-SQR-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9238.7 lumens
Efficiency: N/A
Efficacy: 136.7 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

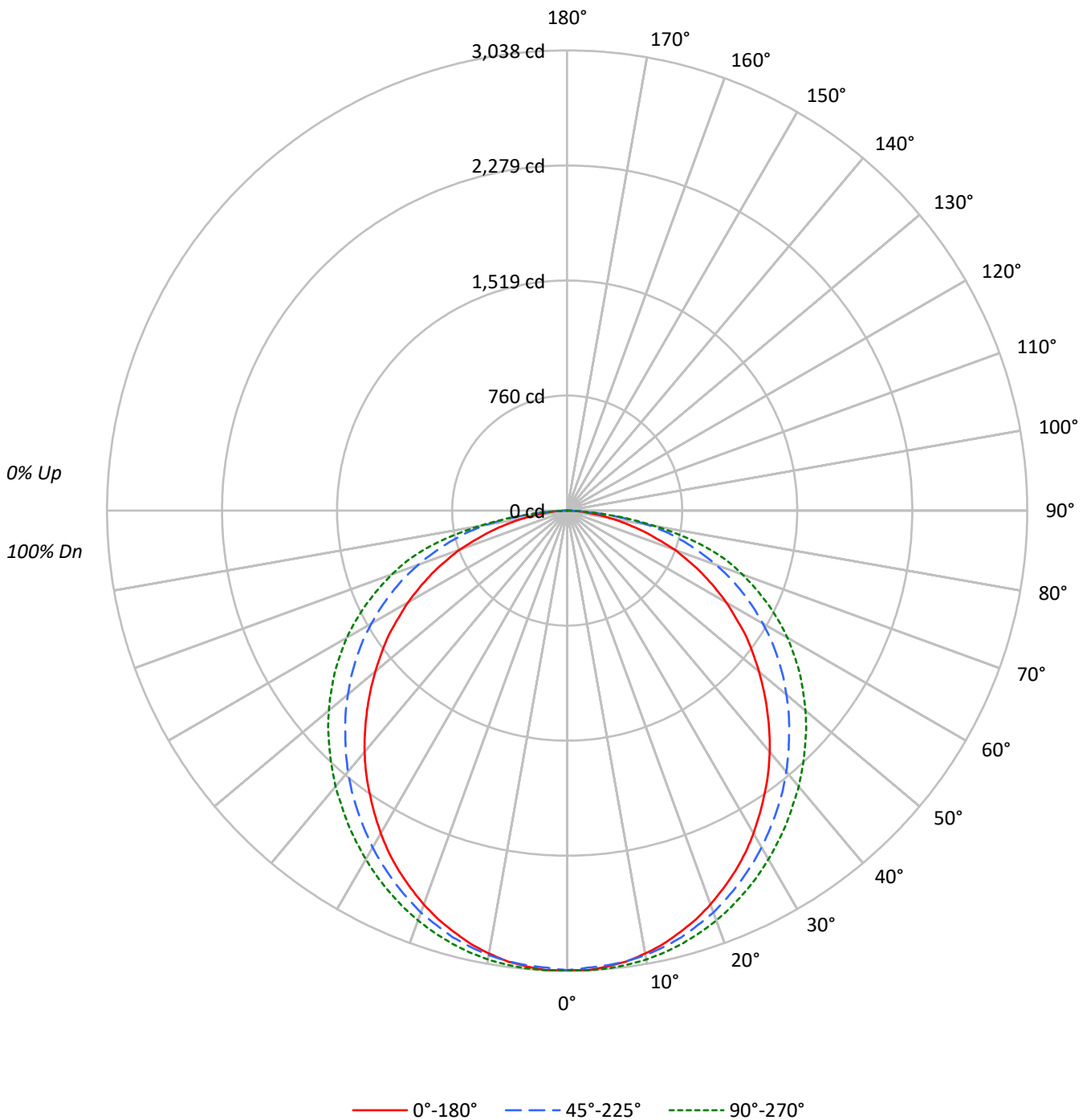
Input Watts (W): 67.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8166	8166	8166
5°	8165	8141	8197
10°	8115	8143	8223
15°	8026	8125	8236
20°	7925	8086	8246
25°	7796	8029	8248
30°	7645	7980	8260
35°	7472	7932	8291
40°	7311	7907	8358
45°	7111	7886	8448
50°	6921	7909	8601
55°	6758	7963	8794
60°	6529	8023	9040
65°	6269	8120	9314
70°	5946	8234	9685
75°	5325	8348	10005
80°	4483	8371	9081
85°	3325	6336	5971



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.6	3.1
10°-20°	824.2	8.9
20°-30°	1247.6	13.5
30°-40°	1509.3	16.3
40°-50°	1593.1	17.2
50°-60°	1502.4	16.3
60°-70°	1238.6	13.4
70°-80°	812.5	8.8
80°-90°	223.4	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°	2359.4	25.5
0°-40°	3868.6	41.9
0°-60°	6964.1	75.4
0°-90°	9238.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9238.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3035	3035	3035	3035	3035	
5°	3023	3023	3014	3035	3035	287
15°	2881	2897	2916	2950	2956	813
25°	2626	2658	2704	2760	2778	1209
35°	2274	2334	2415	2497	2524	1424
45°	1869	1953	2072	2183	2220	1442
55°	1440	1542	1697	1824	1874	1283
65°	984	1103	1275	1411	1463	972
75°	512	644	803	930	962	541
85°	108	186	205	199	193	134
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3034.6	3034.6	3034.6	3034.6	3034.6
2.5°	3037.5	3034.6	3021.3	3039.0	3037.5
5°	3022.8	3022.8	3013.9	3034.6	3034.6
7.5°	3002.1	3003.6	3000.6	3024.3	3024.3
10°	2969.7	2975.6	2980.0	3006.6	3009.5
12.5°	2931.3	2941.6	2950.5	2982.9	2985.9
15°	2881.1	2897.3	2916.5	2950.5	2956.4
17.5°	2829.4	2848.6	2869.3	2913.6	2920.9
20°	2767.4	2789.6	2823.5	2867.8	2879.6
22.5°	2698.1	2729.1	2764.5	2817.6	2832.4
25°	2625.8	2658.2	2704.0	2760.1	2777.8
27.5°	2547.5	2585.9	2637.6	2702.5	2721.7
30°	2460.4	2504.7	2568.2	2637.6	2658.2
32.5°	2368.9	2420.6	2491.4	2568.2	2591.8
35°	2274.5	2333.5	2414.7	2497.3	2523.9
37.5°	2181.5	2240.5	2336.5	2423.5	2448.6
40°	2081.1	2146.1	2250.9	2343.8	2379.3
42.5°	1974.8	2051.6	2162.3	2265.6	2299.6
45°	1868.6	1952.7	2072.3	2183.0	2219.9
47.5°	1760.8	1853.8	1985.2	2097.4	2140.2
50°	1653.1	1752.0	1889.2	2010.3	2054.6
52.5°	1543.9	1647.2	1796.3	1924.7	1964.5
55°	1440.5	1542.4	1697.4	1824.3	1874.5
57.5°	1321.0	1436.1	1600.0	1728.4	1777.1
60°	1213.2	1325.4	1490.7	1626.5	1679.7
62.5°	1096.6	1211.8	1385.9	1521.7	1573.4
65°	984.5	1102.6	1275.2	1411.0	1462.7
67.5°	863.4	987.4	1164.5	1295.9	1346.1
70°	755.7	872.3	1046.5	1180.8	1231.0
72.5°	624.3	757.2	924.0	1056.8	1111.4
75°	512.2	643.5	802.9	929.9	962.3
77.5°	394.1	525.4	683.4	766.0	788.2
80°	289.3	413.3	540.2	584.5	586.0
82.5°	194.8	304.0	376.4	398.5	395.6
85°	107.7	186.0	205.2	199.3	193.4
87.5°	44.3	62.0	50.2	35.4	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)