

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: P473889

Luminaire Tested: **24CZ2-75VHE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473889
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

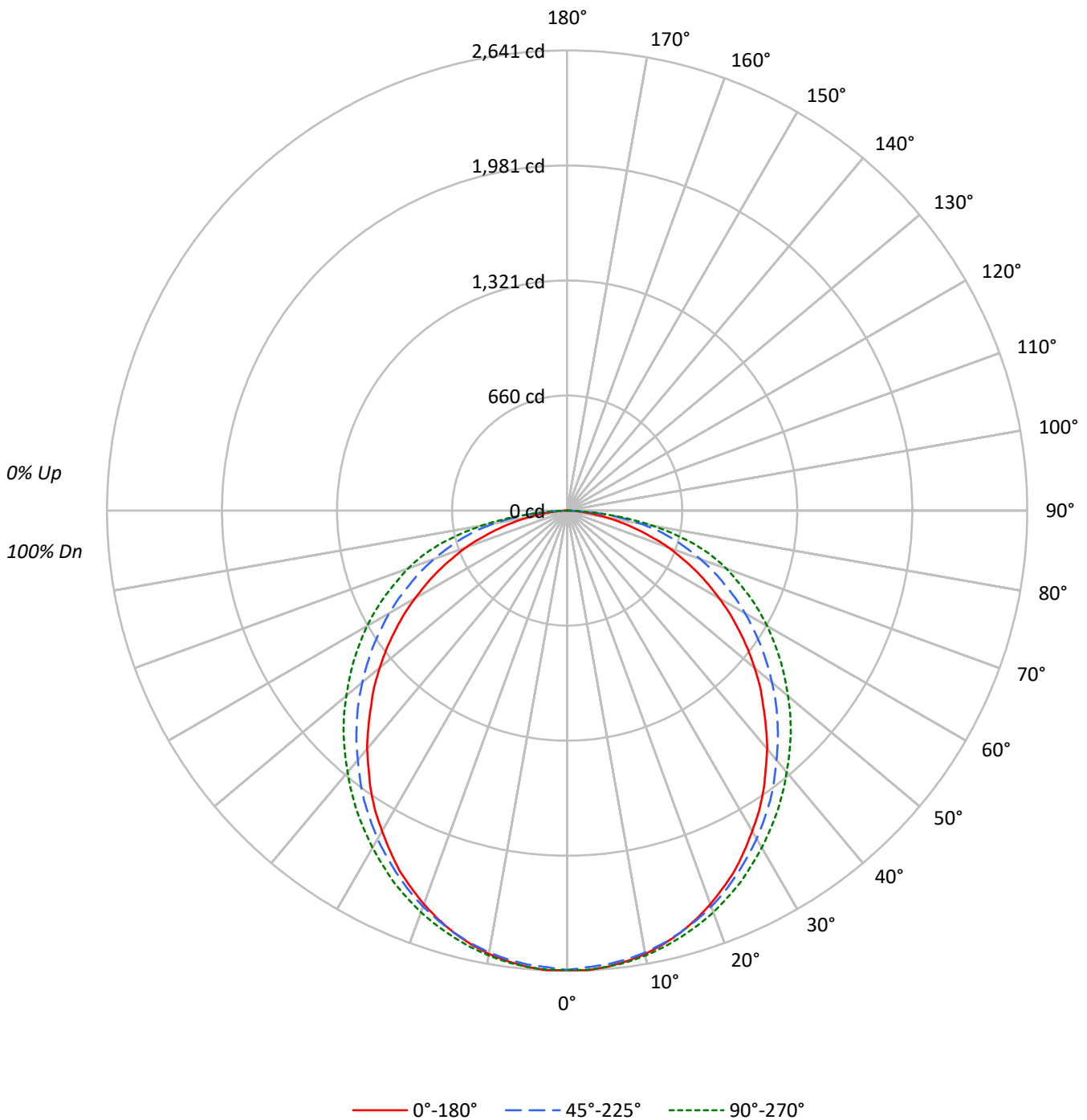
Lumens per Lamp: N/A
Luminaire Lumens: 7631.2 lumens
Efficiency: N/A
Efficacy: 148.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 51.4
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	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°	3548	3548	3548
5°	3550	3532	3550
10°	3530	3519	3542
15°	3495	3493	3527
20°	3442	3463	3513
25°	3382	3421	3496
30°	3300	3381	3471
35°	3226	3337	3457
40°	3138	3283	3443
45°	3031	3249	3453
50°	2939	3213	3463
55°	2831	3190	3502
60°	2714	3175	3566
65°	2586	3164	3658
70°	2435	3196	3827
75°	2141	3262	3980
80°	1786	3286	3840
85°	1275	2817	2854



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.3	3.3
10°-20°	710.1	9.3
20°-30°	1065.2	14.0
30°-40°	1271.8	16.7
40°-50°	1317.3	17.3
50°-60°	1212.7	15.9
60°-70°	978.2	12.8
70°-80°	639.2	8.4
80°-90°	187.4	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°	2024.6	26.5
0°-40°	3296.3	43.2
0°-60°	5826.4	76.3
0°-90°	7631.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7631.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2637	2637	2637	2637	2637	
5°	2628	2626	2615	2630	2628	249
15°	2509	2509	2508	2532	2532	707
25°	2278	2283	2304	2346	2355	1048
35°	1964	1981	2032	2087	2104	1227
45°	1593	1632	1708	1784	1815	1231
55°	1207	1259	1360	1460	1493	1080
65°	812	868	994	1107	1149	803
75°	412	489	628	736	766	440
85°	83	143	182	194	185	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2637.0	2637.0	2637.0	2637.0	2637.0
2.5°	2640.7	2637.0	2623.5	2639.5	2638.3
5°	2628.4	2626.0	2614.9	2629.7	2628.4
7.5°	2608.7	2607.5	2598.8	2614.9	2614.9
10°	2584.0	2581.6	2575.4	2593.9	2592.7
12.5°	2549.5	2548.3	2544.6	2566.8	2565.5
15°	2508.8	2508.8	2507.6	2532.3	2532.3
17.5°	2459.5	2460.8	2465.7	2494.0	2495.3
20°	2404.0	2409.0	2418.8	2450.9	2453.4
22.5°	2341.2	2351.0	2364.6	2400.3	2404.0
25°	2278.3	2283.2	2304.2	2346.1	2354.7
27.5°	2201.9	2214.2	2241.3	2284.5	2293.1
30°	2124.2	2141.4	2176.0	2220.3	2233.9
32.5°	2047.8	2062.5	2103.2	2153.8	2169.8
35°	1963.9	1981.2	2031.7	2087.2	2104.5
37.5°	1871.5	1898.6	1951.6	2015.7	2034.2
40°	1786.4	1811.0	1869.0	1940.5	1960.2
42.5°	1689.0	1719.8	1790.1	1862.8	1887.5
45°	1592.8	1632.3	1707.5	1783.9	1814.7
47.5°	1502.8	1534.9	1623.7	1710.0	1737.1
50°	1404.2	1441.2	1534.9	1626.1	1654.5
52.5°	1306.8	1351.2	1446.1	1542.3	1573.1
55°	1207.0	1258.7	1359.8	1459.7	1493.0
57.5°	1110.8	1162.6	1267.4	1373.4	1407.9
60°	1008.5	1063.9	1179.8	1282.2	1325.3
62.5°	909.8	965.3	1087.4	1198.3	1239.0
65°	812.4	867.9	993.7	1107.1	1149.0
67.5°	711.3	771.8	906.1	1015.9	1056.5
70°	618.9	676.8	812.4	929.6	972.7
72.5°	512.9	581.9	720.0	835.9	876.6
75°	411.8	489.4	627.5	736.0	765.6
77.5°	318.1	395.7	533.8	615.2	633.7
80°	230.5	309.4	424.1	480.8	495.6
82.5°	149.2	230.5	307.0	345.2	350.1
85°	82.6	143.0	182.5	193.6	184.9
87.5°	29.6	54.2	53.0	43.1	34.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)