

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: P473840

Luminaire Tested: **24CZ2-80VHE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473840
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

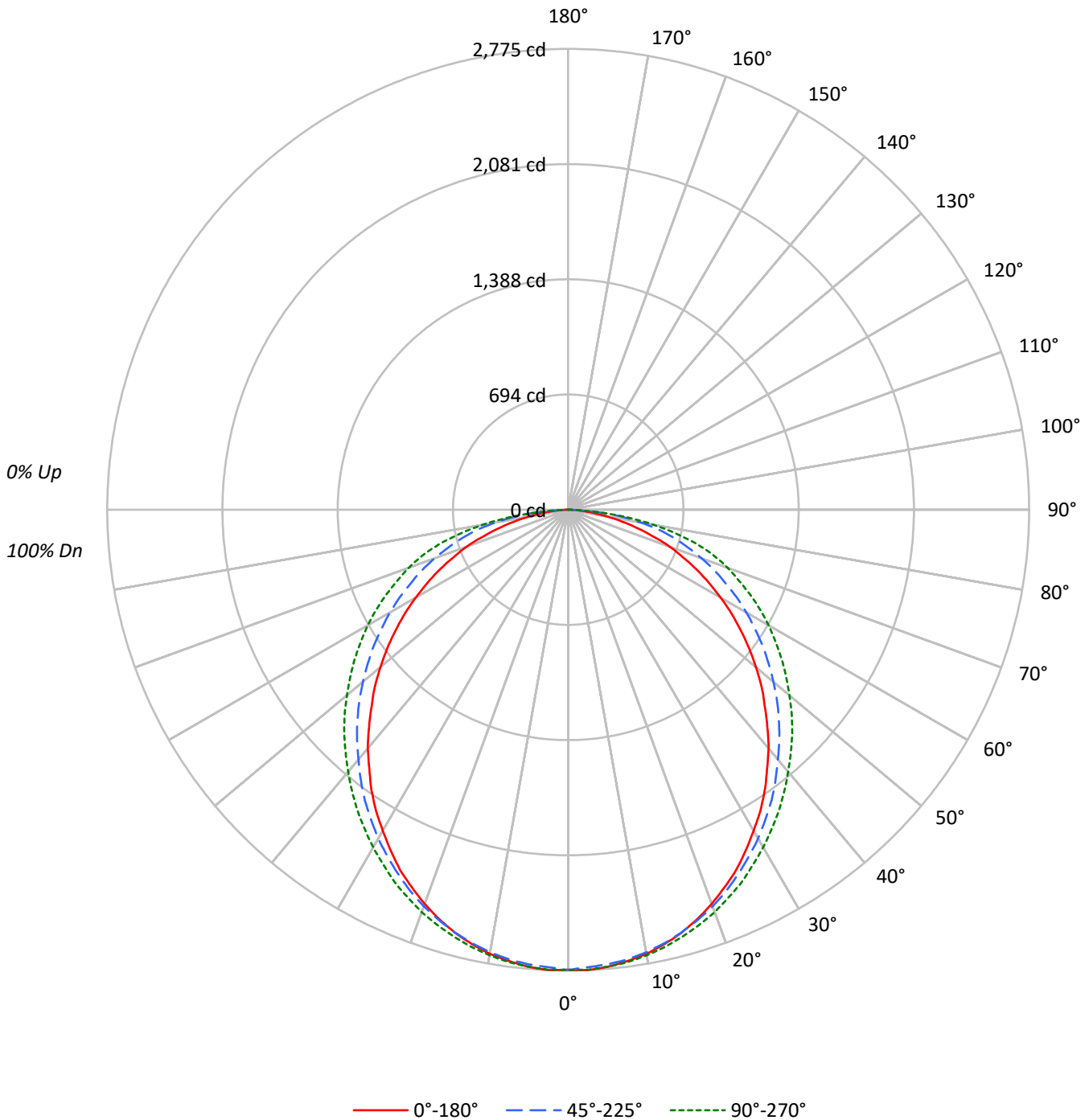
Lumens per Lamp: N/A
Luminaire Lumens: 8018.9 lumens
Efficiency: N/A
Efficacy: 142.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 56.2
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°	3728	3728	3728
5°	3730	3711	3730
10°	3710	3697	3722
15°	3672	3670	3707
20°	3617	3639	3691
25°	3554	3594	3673
30°	3468	3552	3647
35°	3390	3507	3632
40°	3297	3449	3618
45°	3185	3414	3628
50°	3089	3376	3639
55°	2975	3352	3680
60°	2852	3336	3747
65°	2718	3324	3844
70°	2558	3358	4021
75°	2249	3428	4182
80°	1877	3453	4035
85°	1340	2959	3000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.9	3.3
10°-20°	746.1	9.3
20°-30°	1119.3	14.0
30°-40°	1336.4	16.7
40°-50°	1384.2	17.3
50°-60°	1274.3	15.9
60°-70°	1028.0	12.8
70°-80°	671.6	8.4
80°-90°	196.9	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°	2127.4	26.5
0°-40°	3463.8	43.2
0°-60°	6122.3	76.3
0°-90°	8018.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8018.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2771	2771	2771	2771	2771	
5°	2762	2759	2748	2763	2762	262
15°	2636	2636	2635	2661	2661	743
25°	2394	2399	2421	2465	2474	1101
35°	2064	2082	2135	2193	2211	1289
45°	1674	1715	1794	1875	1907	1294
55°	1268	1323	1429	1534	1569	1135
65°	854	912	1044	1163	1207	844
75°	433	514	659	773	804	462
85°	87	150	192	203	194	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2771.0	2771.0	2771.0	2771.0	2771.0
2.5°	2774.9	2771.0	2756.8	2773.6	2772.3
5°	2762.0	2759.4	2747.7	2763.3	2762.0
7.5°	2741.2	2739.9	2730.9	2747.7	2747.7
10°	2715.3	2712.7	2706.3	2725.7	2724.4
12.5°	2679.0	2677.8	2673.9	2697.2	2695.9
15°	2636.3	2636.3	2635.0	2660.9	2660.9
17.5°	2584.5	2585.8	2591.0	2620.7	2622.0
20°	2526.2	2531.4	2541.7	2575.4	2578.0
22.5°	2460.1	2470.5	2484.7	2522.3	2526.2
25°	2394.0	2399.2	2421.2	2465.3	2474.4
27.5°	2313.7	2326.7	2355.2	2400.5	2409.6
30°	2232.1	2250.2	2286.5	2333.2	2347.4
32.5°	2151.8	2167.3	2210.1	2263.2	2280.0
35°	2063.7	2081.8	2134.9	2193.2	2211.4
37.5°	1966.5	1995.0	2050.7	2118.1	2137.5
40°	1877.1	1903.1	1963.9	2039.1	2059.8
42.5°	1774.8	1807.2	1881.0	1957.5	1983.4
45°	1673.8	1715.2	1794.2	1874.6	1906.9
47.5°	1579.2	1612.9	1706.1	1796.8	1825.3
50°	1475.5	1514.4	1612.9	1708.7	1738.5
52.5°	1373.2	1419.8	1519.6	1620.6	1653.0
55°	1268.3	1322.7	1428.9	1533.8	1568.8
57.5°	1167.2	1221.6	1331.7	1443.2	1479.4
60°	1059.7	1118.0	1239.8	1347.3	1392.6
62.5°	956.1	1014.4	1142.6	1259.2	1302.0
65°	853.7	912.0	1044.2	1163.3	1207.4
67.5°	747.5	811.0	952.2	1067.5	1110.2
70°	650.3	711.2	853.7	976.8	1022.1
72.5°	538.9	611.5	756.6	878.3	921.1
75°	432.7	514.3	659.4	773.4	804.5
77.5°	334.2	415.8	560.9	646.4	665.9
80°	242.3	325.2	445.6	505.2	520.8
82.5°	156.8	242.3	322.6	362.7	367.9
85°	86.8	150.3	191.7	203.4	194.3
87.5°	31.1	57.0	55.7	45.3	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)