

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: P474040

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474040
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8179.5 lumens
Efficiency: N/A
Efficacy: 145.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

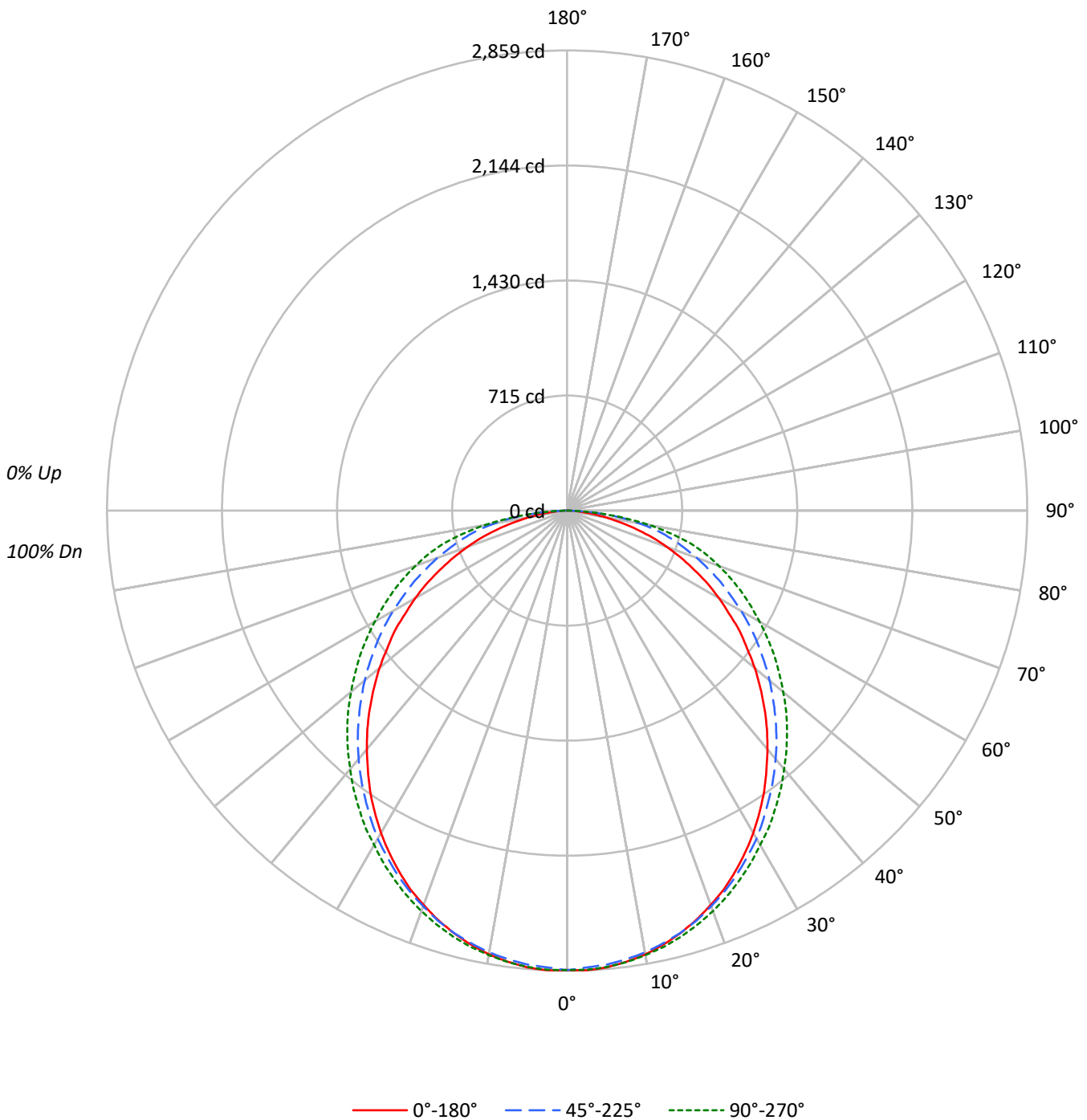
Input Watts (W): 56.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32					32			
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3841	3841	3841
5°	3847	3823	3843
10°	3825	3809	3831
15°	3786	3784	3816
20°	3734	3745	3792
25°	3672	3704	3762
30°	3594	3657	3726
35°	3504	3593	3705
40°	3400	3540	3684
45°	3298	3484	3676
50°	3186	3437	3667
55°	3073	3394	3687
60°	2932	3362	3713
65°	2776	3349	3803
70°	2590	3367	3937
75°	2305	3464	4149
80°	1884	3539	4049
85°	1328	3091	3152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.9	3.3
10°-20°	768.7	9.4
20°-30°	1152.3	14.1
30°-40°	1372.5	16.8
40°-50°	1415.1	17.3
50°-60°	1291.3	15.8
60°-70°	1032.6	12.6
70°-80°	674.5	8.2
80°-90°	202.5	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°	2191.0	26.8
0°-40°	3563.4	43.6
0°-60°	6269.9	76.7
0°-90°	8179.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8179.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2855	2855	2855	2855	2855	
5°	2848	2843	2831	2848	2846	270
15°	2718	2719	2717	2739	2739	766
25°	2473	2478	2495	2531	2534	1139
35°	2134	2148	2187	2242	2256	1333
45°	1733	1764	1831	1908	1932	1337
55°	1310	1348	1447	1542	1572	1167
65°	872	931	1052	1155	1194	865
75°	443	517	666	774	798	471
85°	86	154	200	204	204	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2855.0	2855.0	2855.0	2855.0	2855.0
2.5°	2859.0	2855.0	2840.2	2857.7	2855.0
5°	2848.3	2842.9	2830.8	2848.3	2845.6
7.5°	2826.8	2824.1	2812.0	2832.2	2829.5
10°	2799.9	2797.2	2787.8	2808.0	2803.9
12.5°	2762.3	2760.9	2754.2	2778.4	2775.7
15°	2718.0	2719.3	2716.6	2739.4	2739.4
17.5°	2666.9	2665.6	2670.9	2699.1	2696.5
20°	2607.8	2609.1	2615.8	2648.1	2648.1
22.5°	2546.0	2544.6	2559.4	2591.7	2594.3
25°	2473.4	2477.5	2494.9	2531.2	2533.9
27.5°	2395.5	2402.2	2423.7	2465.4	2469.4
30°	2313.5	2321.6	2353.9	2392.8	2398.2
32.5°	2223.5	2241.0	2270.6	2320.3	2333.7
35°	2133.5	2148.3	2187.3	2242.3	2255.8
37.5°	2034.1	2058.3	2102.6	2163.1	2180.5
40°	1936.0	1960.2	2015.3	2078.4	2097.2
42.5°	1836.6	1862.1	1925.3	1996.5	2016.6
45°	1733.1	1764.0	1831.2	1907.8	1932.0
47.5°	1627.0	1663.3	1735.8	1819.1	1846.0
50°	1522.2	1558.5	1641.8	1727.8	1752.0
52.5°	1409.4	1455.0	1543.7	1636.4	1660.6
55°	1309.9	1347.6	1447.0	1542.4	1571.9
57.5°	1193.1	1244.1	1350.2	1447.0	1475.2
60°	1089.6	1136.6	1249.5	1347.6	1379.8
62.5°	984.8	1033.2	1146.0	1257.5	1287.1
65°	871.9	931.1	1052.0	1155.4	1194.4
67.5°	764.5	826.3	949.9	1060.0	1100.3
70°	658.3	721.5	855.8	968.7	1000.9
72.5°	553.5	619.4	759.1	869.3	906.9
75°	443.4	517.3	666.4	773.9	798.1
77.5°	339.9	421.9	572.3	644.9	662.4
80°	243.2	333.2	456.8	509.2	522.6
82.5°	159.9	247.2	341.3	369.5	365.4
85°	86.0	154.5	200.2	204.2	204.2
87.5°	33.6	61.8	63.1	48.4	45.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)