

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: P474351

Luminaire Tested: **24CZ2-135VHE-RDP-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474351
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-135VHE-RDP-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9271.6 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

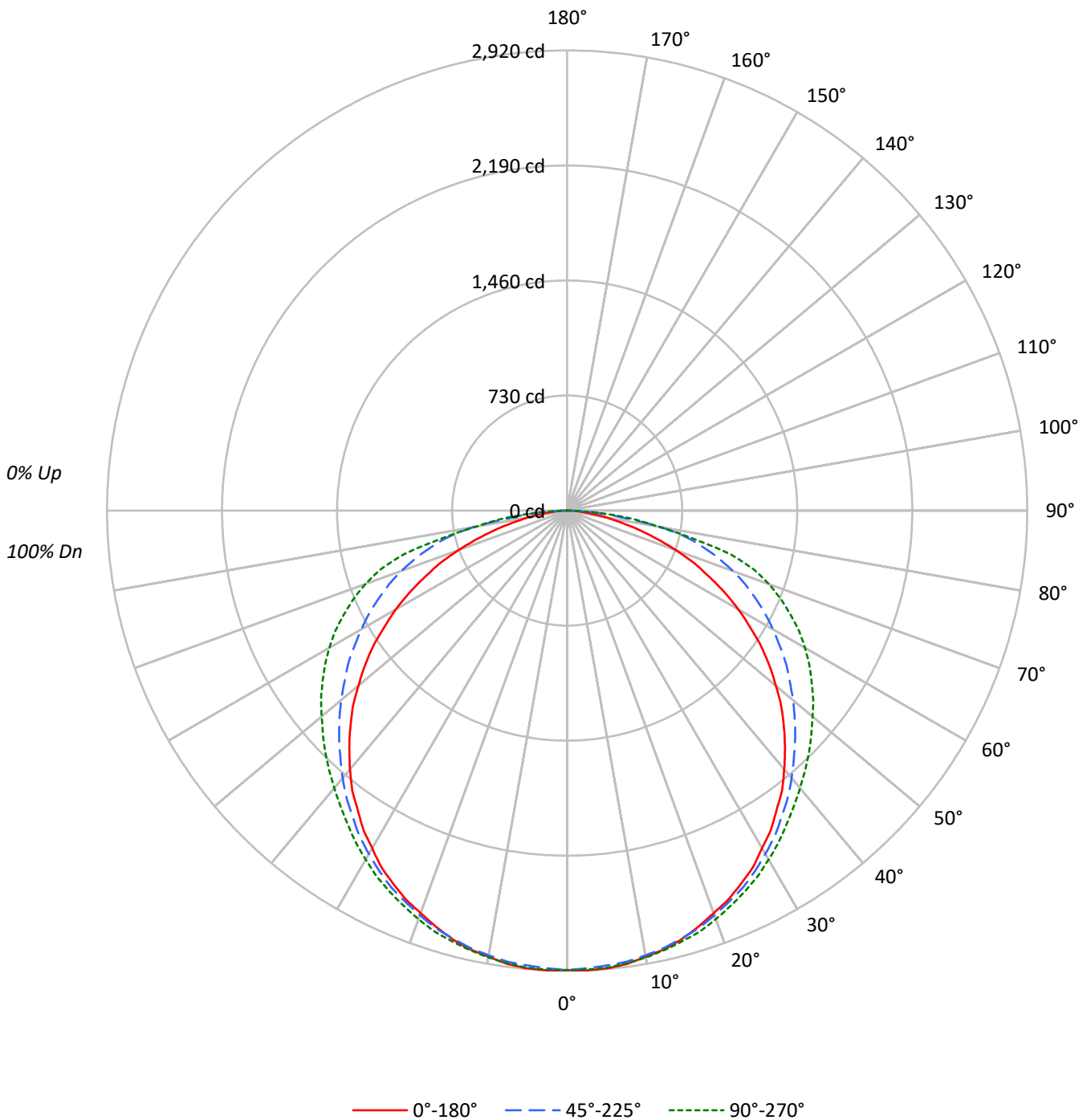
Input Watts (W): 96.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89		92	89	87		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3923	3923	3923
5°	3938	3913	3932
10°	3927	3915	3933
15°	3921	3914	3940
20°	3892	3911	3951
25°	3878	3919	3960
30°	3844	3908	3972
35°	3807	3898	3988
40°	3765	3893	4038
45°	3702	3894	4130
50°	3619	3918	4255
55°	3527	3981	4445
60°	3379	4059	4690
65°	3163	4201	4978
70°	2876	4397	5354
75°	2438	4638	5595
80°	1925	4667	4524
85°	1420	3552	3978



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.6	3.0
10°-20°	796.0	8.6
20°-30°	1217.2	13.1
30°-40°	1488.0	16.0
40°-50°	1586.0	17.1
50°-60°	1516.4	16.4
60°-70°	1284.5	13.9
70°-80°	863.3	9.3
80°-90°	243.6	2.6
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°	2289.8	24.7
0°-40°	3777.8	40.7
0°-60°	6880.1	74.2
0°-90°	9271.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9271.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2916	2916	2916	2916	2916	
5°	2916	2911	2897	2911	2911	277
15°	2815	2815	2810	2833	2828	794
25°	2612	2621	2640	2663	2667	1204
35°	2318	2336	2373	2419	2428	1452
45°	1945	1978	2047	2134	2170	1500
55°	1504	1559	1697	1830	1895	1339
65°	993	1095	1320	1494	1564	986
75°	469	639	892	1044	1076	502
85°	92	189	230	248	258	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2915.8	2915.8	2915.8	2915.8	2915.8
2.5°	2920.4	2920.4	2906.6	2915.8	2915.8
5°	2915.8	2911.2	2897.4	2911.2	2911.2
7.5°	2902.0	2897.4	2888.2	2902.0	2897.4
10°	2874.4	2874.4	2865.2	2879.0	2879.0
12.5°	2851.4	2846.8	2842.2	2860.6	2856.0
15°	2814.6	2814.6	2810.0	2833.0	2828.4
17.5°	2768.6	2773.2	2777.8	2796.2	2800.8
20°	2717.9	2727.1	2731.7	2759.4	2759.4
22.5°	2671.9	2676.5	2685.7	2713.3	2713.3
25°	2612.1	2621.3	2639.7	2662.7	2667.3
27.5°	2552.3	2556.9	2579.9	2612.1	2616.7
30°	2474.1	2487.9	2515.5	2552.3	2556.9
32.5°	2405.1	2418.9	2451.1	2487.9	2497.1
35°	2317.6	2336.0	2372.9	2418.9	2428.1
37.5°	2239.4	2253.2	2299.2	2349.8	2363.7
40°	2143.3	2170.4	2216.4	2276.2	2299.2
42.5°	2046.6	2074.2	2129.4	2207.2	2234.8
45°	1945.4	1977.6	2046.6	2134.0	2170.4
47.5°	1844.2	1881.0	1959.2	2060.4	2101.8
50°	1729.1	1775.2	1871.8	1986.8	2032.8
52.5°	1618.7	1673.9	1779.8	1908.6	1968.4
55°	1503.7	1558.9	1696.9	1830.4	1894.8
57.5°	1374.8	1448.5	1600.3	1752.1	1821.2
60°	1255.7	1324.2	1508.3	1673.9	1742.9
62.5°	1126.8	1218.9	1416.3	1591.1	1660.1
65°	993.4	1094.6	1319.6	1494.5	1563.5
67.5°	873.8	984.2	1223.5	1397.9	1466.9
70°	731.1	869.2	1117.6	1292.0	1361.0
72.5°	597.7	749.5	1007.2	1177.5	1241.9
75°	468.9	639.1	892.2	1044.0	1076.2
77.5°	349.7	528.7	772.5	837.0	814.0
80°	248.5	423.3	602.3	570.1	583.9
82.5°	161.0	322.1	372.7	423.3	436.7
85°	92.0	188.7	230.1	248.5	257.7
87.5°	41.4	69.0	92.0	92.0	87.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)