

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: P474202

Luminaire Tested: **24CZ2-140VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474202
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-140VHE-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9075.7 lumens
Efficiency: N/A
Efficacy: 90.3 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

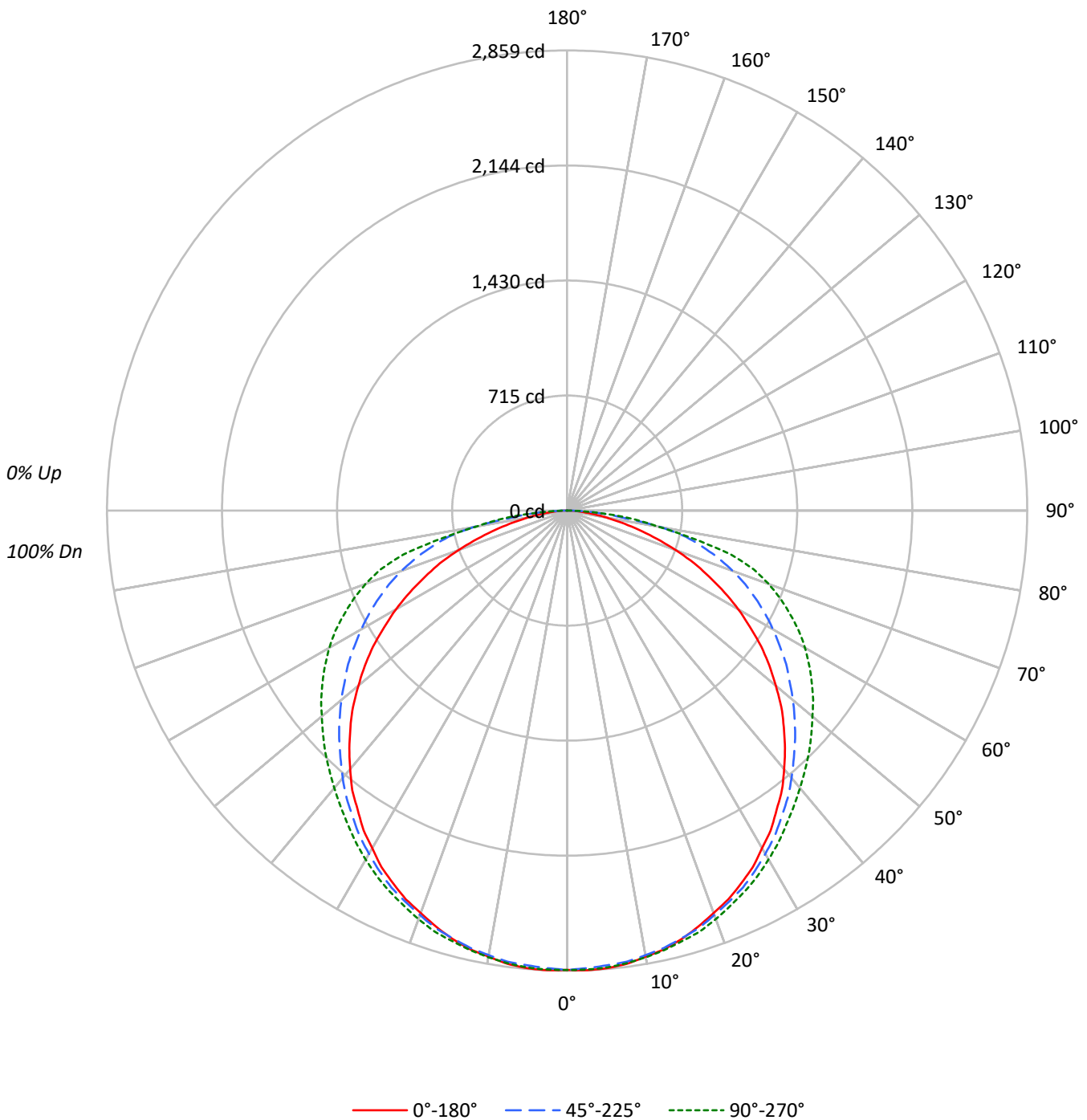
Input Watts (W): 100.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3840	3840	3840
5°	3855	3831	3849
10°	3844	3832	3850
15°	3838	3831	3857
20°	3809	3829	3868
25°	3796	3836	3876
30°	3763	3826	3889
35°	3726	3815	3904
40°	3685	3811	3953
45°	3624	3812	4043
50°	3543	3835	4165
55°	3453	3897	4351
60°	3308	3973	4591
65°	3096	4113	4873
70°	2816	4304	5241
75°	2386	4540	5477
80°	1884	4568	4429
85°	1391	3477	3893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.7	3.0
10°-20°	779.2	8.6
20°-30°	1191.5	13.1
30°-40°	1456.5	16.0
40°-50°	1552.5	17.1
50°-60°	1484.3	16.4
60°-70°	1257.4	13.9
70°-80°	845.1	9.3
80°-90°	238.5	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°	2241.5	24.7
0°-40°	3698.0	40.7
0°-60°	6734.8	74.2
0°-90°	9075.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9075.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2854	2854	2854	2854	2854	
5°	2854	2850	2836	2850	2850	271
15°	2755	2755	2751	2773	2769	777
25°	2557	2566	2584	2606	2611	1178
35°	2269	2287	2323	2368	2377	1421
45°	1904	1936	2003	2089	2125	1469
55°	1472	1526	1661	1792	1855	1311
65°	972	1072	1292	1463	1530	965
75°	459	626	873	1022	1054	492
85°	90	185	225	243	252	111
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2854.2	2854.2	2854.2	2854.2	2854.2
2.5°	2858.7	2858.7	2845.2	2854.2	2854.2
5°	2854.2	2849.7	2836.2	2849.7	2849.7
7.5°	2840.7	2836.2	2827.2	2840.7	2836.2
10°	2813.7	2813.7	2804.7	2818.2	2818.2
12.5°	2791.1	2786.6	2782.1	2800.2	2795.7
15°	2755.1	2755.1	2750.6	2773.1	2768.6
17.5°	2710.1	2714.6	2719.1	2737.1	2741.6
20°	2660.5	2669.5	2674.0	2701.1	2701.1
22.5°	2615.5	2620.0	2629.0	2656.0	2656.0
25°	2556.9	2565.9	2584.0	2606.5	2611.0
27.5°	2498.4	2502.9	2525.4	2556.9	2561.4
30°	2421.8	2435.3	2462.4	2498.4	2502.9
32.5°	2354.3	2367.8	2399.3	2435.3	2444.3
35°	2268.7	2286.7	2322.7	2367.8	2376.8
37.5°	2192.1	2205.6	2250.7	2300.2	2313.7
40°	2098.0	2124.6	2169.6	2228.1	2250.7
42.5°	2003.4	2030.4	2084.5	2160.6	2187.6
45°	1904.3	1935.8	2003.4	2089.0	2124.6
47.5°	1805.2	1841.2	1917.8	2016.9	2057.4
50°	1692.6	1737.7	1832.2	1944.8	1989.9
52.5°	1584.5	1638.6	1742.2	1868.3	1926.8
55°	1471.9	1526.0	1661.1	1791.7	1854.8
57.5°	1345.8	1417.9	1566.5	1715.1	1782.7
60°	1229.2	1296.3	1476.4	1638.6	1706.1
62.5°	1103.0	1193.1	1386.3	1557.5	1625.1
65°	972.4	1071.5	1291.8	1462.9	1530.5
67.5°	855.3	963.4	1197.6	1368.3	1435.9
70°	715.7	850.8	1094.0	1264.7	1332.3
72.5°	585.1	733.7	985.9	1152.6	1215.6
75°	459.0	625.6	873.3	1022.0	1053.5
77.5°	342.3	517.5	756.2	819.3	796.8
80°	243.2	414.4	589.6	558.0	571.6
82.5°	157.6	315.3	364.8	414.4	427.4
85°	90.1	184.7	225.2	243.2	252.2
87.5°	40.5	67.6	90.1	90.1	85.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)