

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: P474184

Luminaire Tested: **24CZ2-40VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474184
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-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: 2618.6 lumens
Efficiency: N/A
Efficacy: 95.9 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

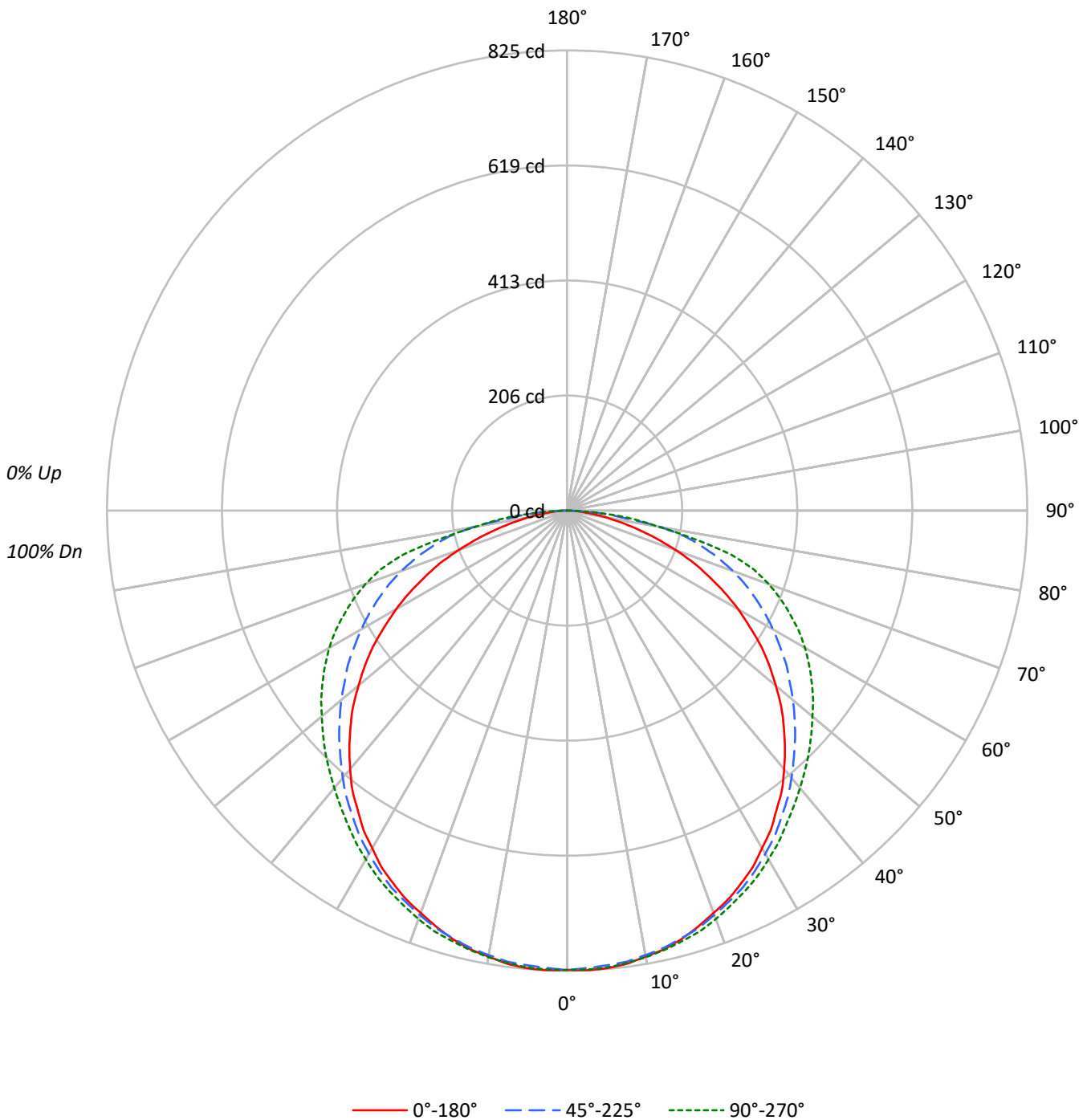
Input Watts (W): 27.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1108	1108	1108
5°	1112	1105	1110
10°	1109	1106	1111
15°	1107	1105	1113
20°	1099	1105	1116
25°	1095	1107	1118
30°	1086	1104	1122
35°	1075	1101	1126
40°	1063	1100	1141
45°	1045	1100	1166
50°	1022	1106	1202
55°	996	1124	1255
60°	954	1146	1325
65°	893	1187	1406
70°	812	1242	1512
75°	688	1310	1580
80°	544	1318	1278
85°	401	1003	1124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	3.0
10°-20°	224.8	8.6
20°-30°	343.8	13.1
30°-40°	420.3	16.0
40°-50°	447.9	17.1
50°-60°	428.3	16.4
60°-70°	362.8	13.9
70°-80°	243.8	9.3
80°-90°	68.8	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°	646.7	24.7
0°-40°	1066.9	40.7
0°-60°	1943.1	74.2
0°-90°	2618.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2618.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	824	822	818	822	822	78
15°	795	795	794	800	799	224
25°	738	740	746	752	753	340
35°	655	660	670	683	686	410
45°	549	558	578	603	613	424
55°	425	440	479	517	535	378
65°	281	309	373	422	442	279
75°	132	180	252	295	304	142
85°	26	53	65	70	73	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	823.5	823.5	823.5	823.5	823.5
2.5°	824.8	824.8	820.9	823.5	823.5
5°	823.5	822.2	818.3	822.2	822.2
7.5°	819.6	818.3	815.7	819.6	818.3
10°	811.8	811.8	809.2	813.1	813.1
12.5°	805.3	804.0	802.7	807.9	806.6
15°	794.9	794.9	793.6	800.1	798.8
17.5°	781.9	783.2	784.5	789.7	791.0
20°	767.6	770.2	771.5	779.3	779.3
22.5°	754.6	755.9	758.5	766.3	766.3
25°	737.7	740.3	745.5	752.0	753.3
27.5°	720.8	722.1	728.6	737.7	739.0
30°	698.8	702.6	710.4	720.8	722.1
32.5°	679.3	683.2	692.3	702.6	705.2
35°	654.6	659.8	670.2	683.2	685.8
37.5°	632.5	636.4	649.4	663.7	667.6
40°	605.3	613.0	626.0	642.9	649.4
42.5°	578.0	585.8	601.4	623.4	631.2
45°	549.4	558.5	578.0	602.7	613.0
47.5°	520.8	531.2	553.3	581.9	593.6
50°	488.4	501.4	528.6	561.1	574.1
52.5°	457.2	472.8	502.7	539.0	555.9
55°	424.7	440.3	479.3	516.9	535.1
57.5°	388.3	409.1	452.0	494.9	514.3
60°	354.6	374.0	426.0	472.8	492.3
62.5°	318.3	344.2	400.0	449.4	468.9
65°	280.6	309.2	372.7	422.1	441.6
67.5°	246.8	278.0	345.5	394.8	414.3
70°	206.5	245.5	315.7	364.9	384.4
72.5°	168.8	211.7	284.5	332.5	350.7
75°	132.4	180.5	252.0	294.9	304.0
77.5°	98.8	149.3	218.2	236.4	229.9
80°	70.2	119.6	170.1	161.0	164.9
82.5°	45.5	91.0	105.3	119.6	123.3
85°	26.0	53.3	65.0	70.2	72.8
87.5°	11.7	19.5	26.0	26.0	24.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)