

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: P474163

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474163
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ RDP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

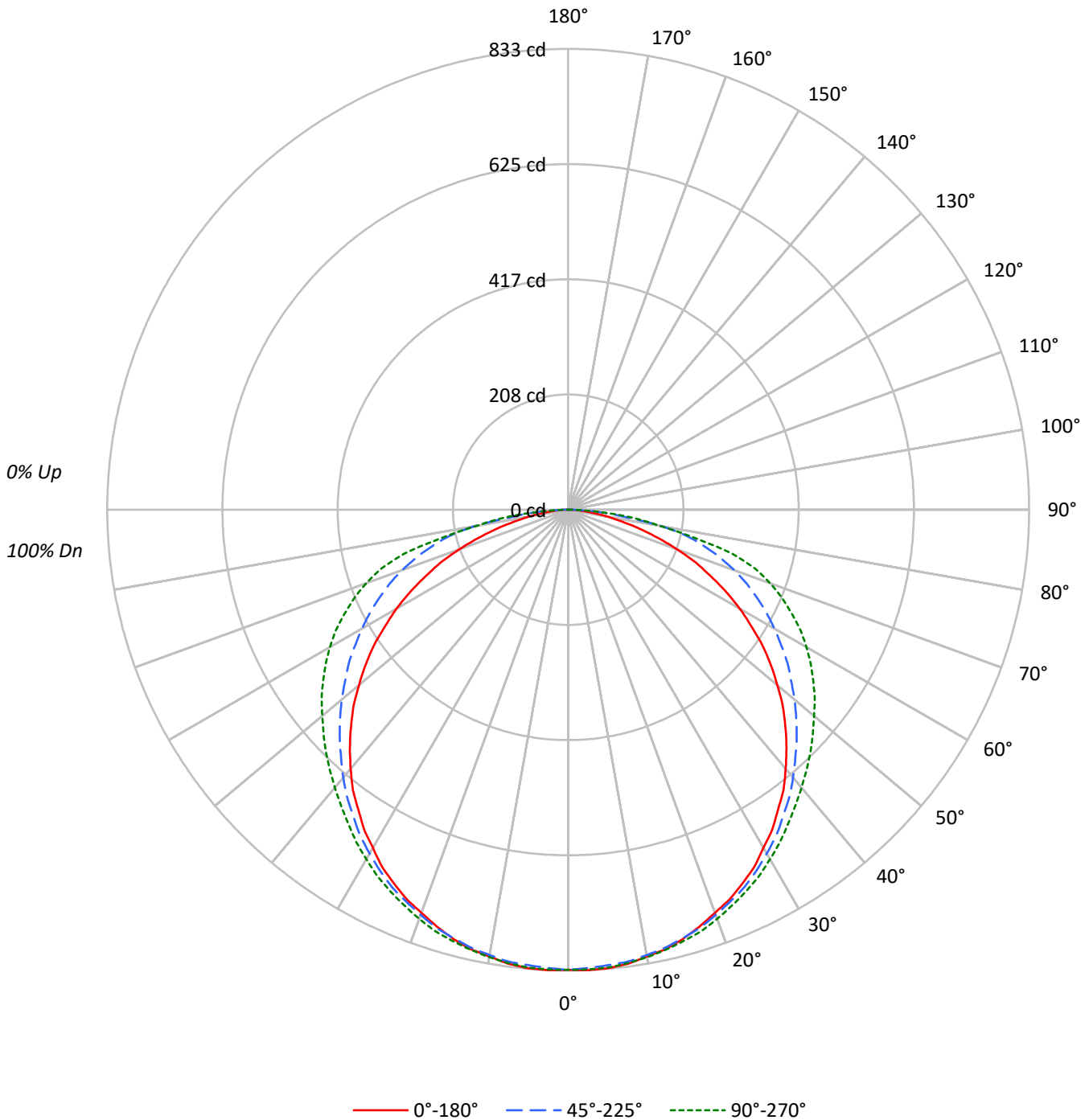
Lumens per Lamp: N/A
Luminaire Lumens: 2645.0 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
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°	1119	1119	1119
5°	1123	1116	1122
10°	1120	1117	1122
15°	1119	1117	1124
20°	1110	1116	1127
25°	1106	1118	1130
30°	1097	1115	1133
35°	1086	1112	1138
40°	1074	1111	1152
45°	1056	1111	1178
50°	1033	1118	1214
55°	1006	1136	1268
60°	964	1158	1338
65°	902	1199	1420
70°	821	1254	1528
75°	696	1323	1596
80°	549	1331	1291
85°	406	1013	1135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.9	3.0
10°-20°	227.1	8.6
20°-30°	347.3	13.1
30°-40°	424.5	16.0
40°-50°	452.5	17.1
50°-60°	432.6	16.4
60°-70°	366.5	13.9
70°-80°	246.3	9.3
80°-90°	69.5	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°	653.3	24.7
0°-40°	1077.8	40.7
0°-60°	1962.8	74.2
0°-90°	2645.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2645.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	832	832	832	832	832	
5°	832	830	827	830	830	79
15°	803	803	802	808	807	226
25°	745	748	753	760	761	343
35°	661	666	677	690	693	414
45°	555	564	584	609	619	428
55°	429	445	484	522	541	382
65°	283	312	376	426	446	281
75°	134	182	254	298	307	143
85°	26	54	66	71	74	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.8	831.8	831.8	831.8	831.8
2.5°	833.2	833.2	829.2	831.8	831.8
5°	831.8	830.5	826.6	830.5	830.5
7.5°	827.9	826.6	824.0	827.9	826.6
10°	820.0	820.0	817.4	821.3	821.3
12.5°	813.5	812.2	810.8	816.1	814.8
15°	803.0	803.0	801.6	808.2	806.9
17.5°	789.8	791.1	792.5	797.7	799.0
20°	775.4	778.0	779.3	787.2	787.2
22.5°	762.3	763.6	766.2	774.1	774.1
25°	745.2	747.8	753.1	759.6	761.0
27.5°	728.1	729.5	736.0	745.2	746.5
30°	705.8	709.8	717.6	728.1	729.5
32.5°	686.1	690.1	699.3	709.8	712.4
35°	661.2	666.4	676.9	690.1	692.7
37.5°	638.9	642.8	655.9	670.4	674.3
40°	611.4	619.2	632.3	649.4	655.9
42.5°	583.9	591.8	607.5	629.7	637.6
45°	555.0	564.2	583.9	608.8	619.2
47.5°	526.1	536.6	558.9	587.8	599.6
50°	493.3	506.4	534.0	566.8	579.9
52.5°	461.8	477.6	507.7	544.5	561.6
55°	429.0	444.7	484.1	522.2	540.6
57.5°	392.2	413.2	456.5	499.9	519.6
60°	358.2	377.8	430.3	477.6	497.2
62.5°	321.5	347.7	404.0	453.9	473.6
65°	283.4	312.3	376.5	426.4	446.0
67.5°	249.3	280.8	349.0	398.8	418.5
70°	208.6	248.0	318.8	368.6	388.3
72.5°	170.5	213.8	287.3	335.9	354.3
75°	133.8	182.3	254.5	297.8	307.0
77.5°	99.8	150.8	220.4	238.8	232.2
80°	70.9	120.8	171.8	162.6	166.6
82.5°	45.9	91.9	106.3	120.8	124.6
85°	26.3	53.8	65.6	70.9	73.5
87.5°	11.8	19.7	26.3	26.3	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)