

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: P474164

Luminaire Tested: **24CZ2-45-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474164
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45-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

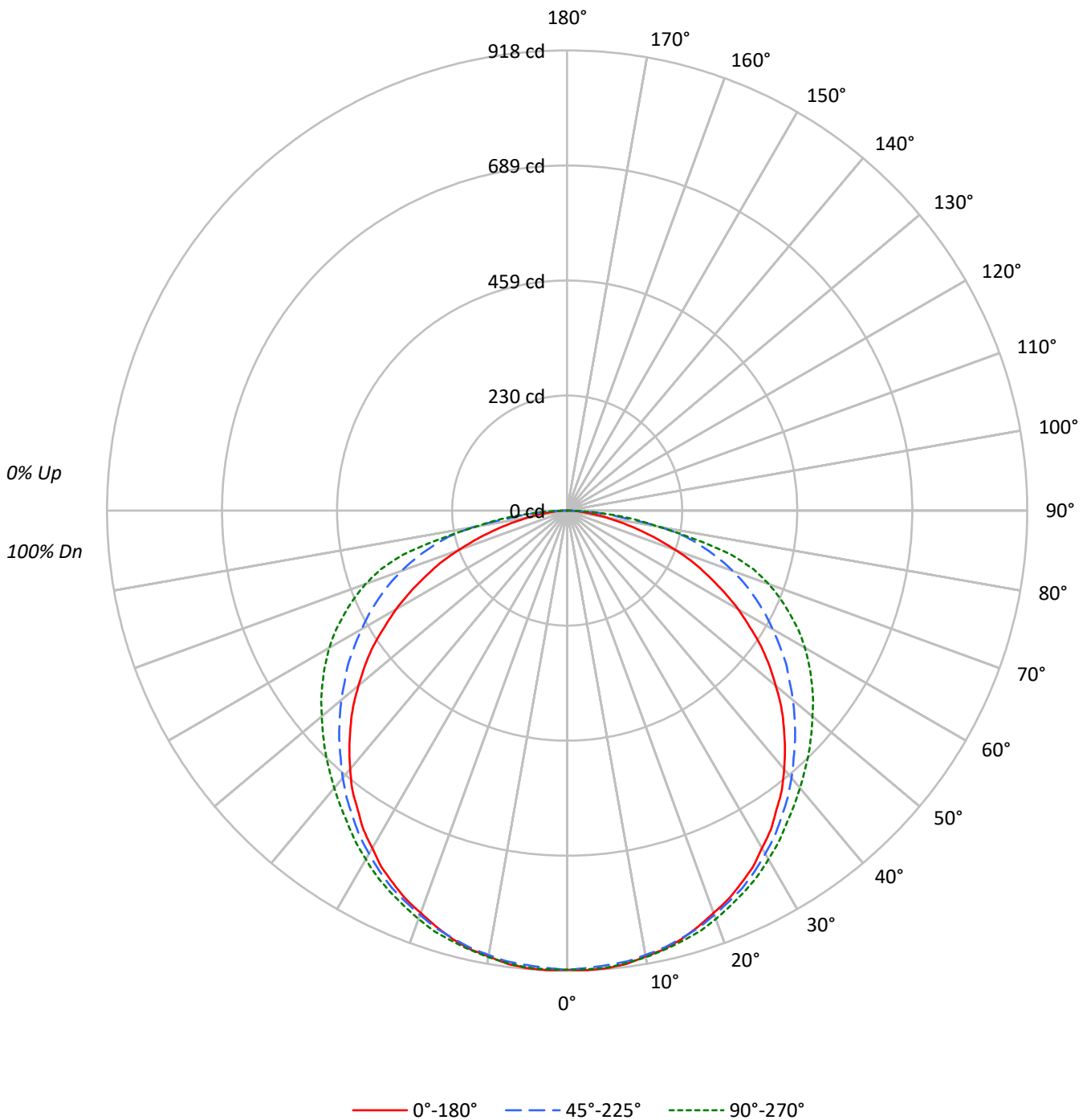
Lumens per Lamp: N/A
Luminaire Lumens: 2913.4 lumens
Efficiency: N/A
Efficacy: 83.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.9
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°	1233	1233	1233
5°	1237	1230	1236
10°	1234	1230	1236
15°	1232	1230	1238
20°	1223	1229	1242
25°	1219	1231	1244
30°	1208	1228	1248
35°	1196	1225	1253
40°	1183	1223	1269
45°	1163	1224	1298
50°	1137	1231	1337
55°	1108	1251	1397
60°	1062	1275	1474
65°	994	1320	1564
70°	904	1382	1683
75°	766	1457	1758
80°	605	1467	1422
85°	446	1116	1250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.9	3.0
10°-20°	250.1	8.6
20°-30°	382.5	13.1
30°-40°	467.6	16.0
40°-50°	498.4	17.1
50°-60°	476.5	16.4
60°-70°	403.6	13.9
70°-80°	271.3	9.3
80°-90°	76.5	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°	719.5	24.7
0°-40°	1187.1	40.7
0°-60°	2161.9	74.2
0°-90°	2913.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2913.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	916	916	916	916	916	
5°	916	915	910	915	915	87
15°	884	884	883	890	889	249
25°	821	824	830	837	838	378
35°	728	734	746	760	763	456
45°	611	621	643	671	682	471
55°	472	490	533	575	595	421
65°	312	344	415	470	491	310
75°	147	201	280	328	338	158
85°	29	59	72	78	81	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	916.2	916.2	916.2	916.2	916.2
2.5°	917.7	917.7	913.3	916.2	916.2
5°	916.2	914.8	910.4	914.8	914.8
7.5°	911.9	910.4	907.5	911.9	910.4
10°	903.2	903.2	900.3	904.7	904.7
12.5°	896.0	894.5	893.1	898.9	897.4
15°	884.4	884.4	883.0	890.2	888.8
17.5°	870.0	871.4	872.8	878.6	880.1
20°	854.1	856.9	858.4	867.1	867.1
22.5°	839.6	841.0	843.9	852.6	852.6
25°	820.8	823.7	829.5	836.7	838.1
27.5°	802.0	803.4	810.7	820.8	822.2
30°	777.4	781.8	790.4	802.0	803.4
32.5°	755.7	760.1	770.2	781.8	784.7
35°	728.3	734.0	745.6	760.1	763.0
37.5°	703.7	708.0	722.5	738.4	742.7
40°	673.5	682.0	696.5	715.3	722.5
42.5°	643.1	651.8	669.1	693.6	702.2
45°	611.3	621.4	643.1	670.6	682.0
47.5°	579.5	591.1	615.6	647.4	660.5
50°	543.3	557.8	588.2	624.3	638.8
52.5°	508.6	526.0	559.2	599.7	618.5
55°	472.5	489.8	533.2	575.2	595.4
57.5°	432.0	455.1	502.9	550.6	572.3
60°	394.6	416.1	473.9	526.0	547.7
62.5°	354.1	383.0	445.0	500.0	521.7
65°	312.2	344.0	414.7	469.6	491.3
67.5°	274.6	309.3	384.4	439.2	460.9
70°	229.7	273.1	351.2	406.0	427.7
72.5°	187.8	235.5	316.5	370.0	390.2
75°	147.3	200.8	280.3	328.1	338.2
77.5°	109.9	166.1	242.8	263.0	255.8
80°	78.1	133.0	189.3	179.1	183.5
82.5°	50.6	101.2	117.1	133.0	137.2
85°	28.9	59.3	72.3	78.1	81.0
87.5°	13.0	21.7	28.9	28.9	27.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)