

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: P474761

Luminaire Tested: **22CZ2-20-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474761
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

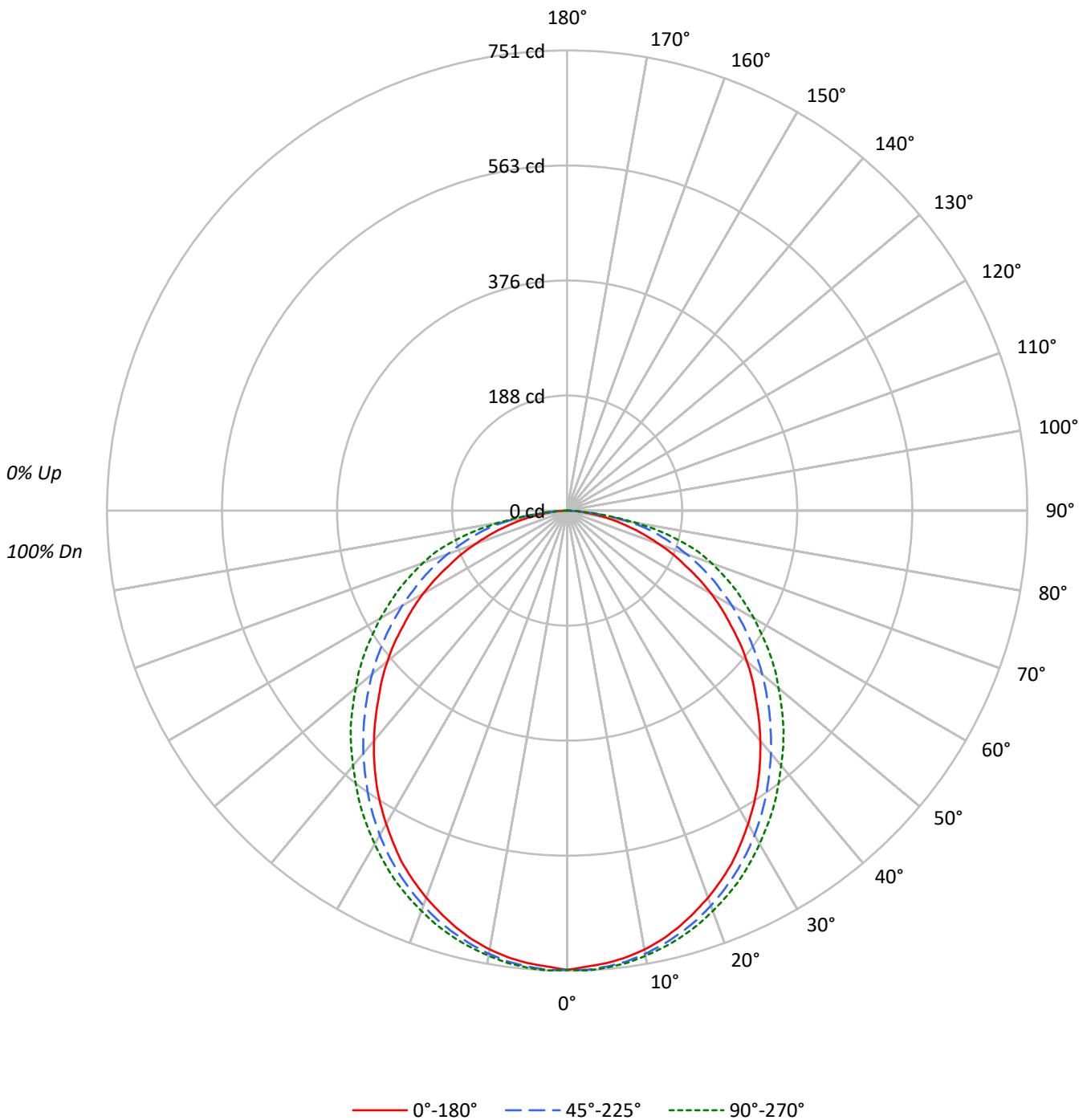
Lumens per Lamp: N/A
Luminaire Lumens: 2067.0 lumens
Efficiency: N/A
Efficacy: 127.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.2
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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50					50			
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2017	2017	2017
5°	2002	2018	2022
10°	1987	2006	2016
15°	1960	1989	2007
20°	1925	1965	1991
25°	1887	1935	1975
30°	1835	1900	1952
35°	1784	1860	1933
40°	1723	1818	1909
45°	1657	1777	1900
50°	1604	1741	1886
55°	1529	1703	1889
60°	1460	1674	1895
65°	1358	1652	1925
70°	1254	1629	1972
75°	1122	1621	1985
80°	941	1537	1733
85°	729	1053	985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	3.4
10°-20°	201.0	9.7
20°-30°	299.8	14.5
30°-40°	353.9	17.1
40°-50°	360.7	17.4
50°-60°	325.2	15.7
60°-70°	255.6	12.4
70°-80°	160.1	7.7
80°-90°	39.9	1.9
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°	571.6	27.7
0°-40°	925.5	44.8
0°-60°	1611.4	78.0
0°-90°	2067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2067.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	750	750	750	750	750	
5°	741	743	747	749	749	70
15°	704	707	714	719	720	198
25°	636	640	652	662	665	292
35°	543	550	566	582	588	339
45°	436	445	467	490	499	337
55°	326	336	363	391	403	293
65°	213	226	260	288	302	213
75°	108	124	156	184	191	115
85°	24	30	34	34	32	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	749.6	749.6	749.6	749.6	749.6
2.5°	744.8	746.5	750.0	751.3	751.3
5°	741.3	743.0	747.0	748.7	748.7
7.5°	735.6	737.4	742.2	744.3	744.8
10°	727.3	729.5	734.3	737.8	737.8
12.5°	716.8	719.0	725.1	729.5	729.9
15°	703.7	706.8	713.8	719.0	720.3
17.5°	688.4	693.2	701.1	707.6	709.0
20°	672.3	677.1	686.2	693.7	695.4
22.5°	654.4	658.7	669.6	678.8	681.0
25°	635.6	640.4	651.7	661.8	665.3
27.5°	613.3	619.0	632.5	643.9	647.4
30°	590.6	597.6	611.5	624.2	628.1
32.5°	567.4	574.0	589.7	603.2	608.5
35°	543.0	550.0	566.1	581.8	588.4
37.5°	517.2	524.2	541.7	559.6	565.7
40°	490.5	498.8	517.6	536.9	543.4
42.5°	463.5	472.2	491.9	513.3	522.0
45°	435.5	445.1	467.0	489.7	499.3
47.5°	410.2	418.0	440.8	465.6	474.8
50°	383.1	390.5	415.9	440.8	450.4
52.5°	355.6	362.6	389.6	415.9	427.6
55°	325.9	335.9	363.0	391.0	402.7
57.5°	299.7	308.8	336.8	365.2	376.5
60°	271.3	280.9	311.0	339.8	352.1
62.5°	242.9	253.4	283.9	314.9	326.3
65°	213.2	226.3	259.5	288.3	302.3
67.5°	187.8	200.5	233.3	263.4	275.6
70°	159.4	174.3	207.1	237.6	250.7
72.5°	132.8	147.6	181.3	211.9	225.0
75°	107.9	124.1	155.9	183.9	190.9
77.5°	83.9	99.2	131.0	147.2	154.6
80°	60.7	75.6	99.2	110.1	111.8
82.5°	41.1	53.7	67.3	70.3	68.6
85°	23.6	30.1	34.1	34.1	31.9
87.5°	9.6	9.6	8.3	5.2	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)