

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: P474819

Luminaire Tested: **22CZ2-20-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474819
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2182.6 lumens
Efficiency: N/A
Efficacy: 134.7 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

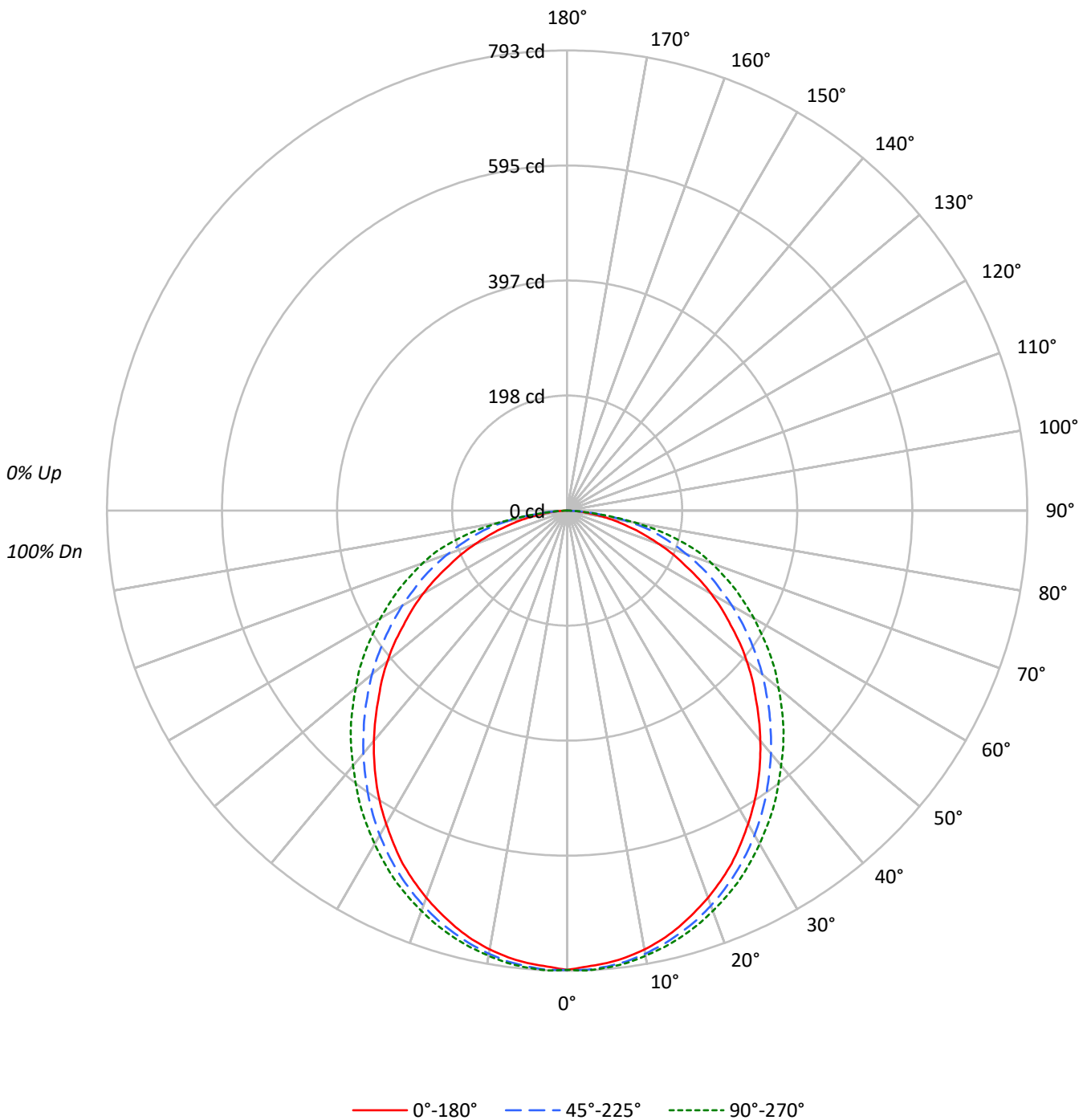
Input Watts (W): 16.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2130	2130	2130
5°	2115	2131	2136
10°	2099	2119	2129
15°	2070	2100	2119
20°	2033	2075	2103
25°	1993	2043	2086
30°	1938	2007	2061
35°	1884	1964	2041
40°	1820	1920	2016
45°	1750	1877	2006
50°	1693	1838	1991
55°	1614	1798	1995
60°	1541	1767	2001
65°	1433	1745	2032
70°	1325	1720	2083
75°	1184	1712	2096
80°	993	1623	1830
85°	769	1112	1041



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.8	3.4
10°-20°	212.3	9.7
20°-30°	316.5	14.5
30°-40°	373.7	17.1
40°-50°	380.8	17.4
50°-60°	343.4	15.7
60°-70°	269.9	12.4
70°-80°	169.0	7.7
80°-90°	42.1	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°	603.6	27.7
0°-40°	977.3	44.8
0°-60°	1701.5	78.0
0°-90°	2182.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2182.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	783	785	789	791	791	74
15°	743	746	754	759	761	209
25°	671	676	688	699	702	309
35°	573	581	598	614	621	358
45°	460	470	493	517	527	356
55°	344	355	383	413	425	309
65°	225	239	274	304	319	224
75°	114	131	165	194	202	121
85°	25	32	36	36	34	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	791.5	791.5	791.5	791.5	791.5
2.5°	786.5	788.3	792.0	793.4	793.4
5°	782.8	784.6	788.8	790.6	790.6
7.5°	776.8	778.6	783.7	786.0	786.5
10°	768.0	770.3	775.4	779.1	779.1
12.5°	756.9	759.2	765.7	770.3	770.8
15°	743.1	746.3	753.7	759.2	760.6
17.5°	727.0	732.0	740.3	747.2	748.6
20°	709.9	715.0	724.6	732.5	734.3
22.5°	691.0	695.6	707.1	716.8	719.1
25°	671.1	676.2	688.2	698.8	702.5
27.5°	647.6	653.6	667.9	679.9	683.6
30°	623.6	631.0	645.8	659.1	663.3
32.5°	599.2	606.1	622.7	637.0	642.5
35°	573.4	580.7	597.8	614.4	621.3
37.5°	546.1	553.5	572.0	590.9	597.3
40°	518.0	526.8	546.6	566.9	573.8
42.5°	489.4	498.6	519.4	542.0	551.2
45°	459.9	470.0	493.1	517.1	527.2
47.5°	433.1	441.4	465.4	491.7	501.4
50°	404.5	412.4	439.1	465.4	475.6
52.5°	375.5	382.8	411.4	439.1	451.6
55°	344.1	354.7	383.3	412.8	425.3
57.5°	316.4	326.1	355.6	385.6	397.6
60°	286.4	296.6	328.4	358.9	371.8
62.5°	256.5	267.5	299.8	332.6	344.6
65°	225.1	238.9	274.0	304.4	319.2
67.5°	198.3	211.7	246.3	278.1	291.1
70°	168.4	184.0	218.6	250.9	264.8
72.5°	140.2	155.9	191.4	223.7	237.6
75°	113.9	131.0	164.7	194.2	201.6
77.5°	88.6	104.7	138.4	155.4	163.3
80°	64.1	79.8	104.7	116.2	118.1
82.5°	43.4	56.7	71.0	74.3	72.4
85°	24.9	31.8	36.0	36.0	33.7
87.5°	10.1	10.1	8.8	5.5	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)