

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: P475359

Luminaire Tested: **14CZ2-20-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475359
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-20-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2096.0 lumens
Efficiency: N/A
Efficacy: 134.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.29 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

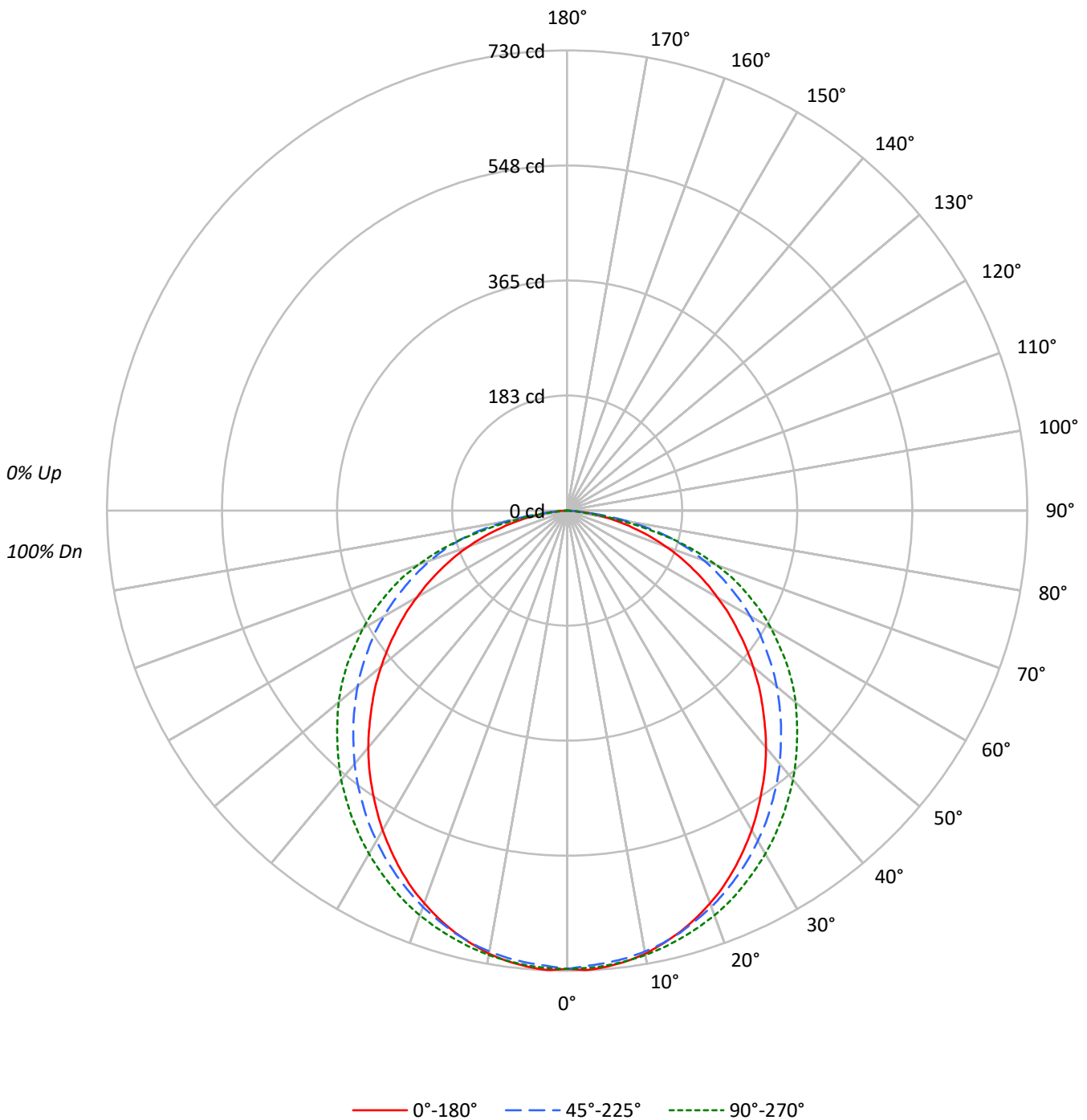
Input Watts (W): 15.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1957	1957	1957
5°	1962	1945	1957
10°	1950	1941	1956
15°	1928	1931	1955
20°	1898	1916	1956
25°	1862	1898	1955
30°	1820	1880	1954
35°	1772	1860	1954
40°	1724	1842	1959
45°	1668	1825	1963
50°	1611	1817	1981
55°	1550	1809	1998
60°	1482	1807	2012
65°	1406	1802	2017
70°	1309	1812	1978
75°	1161	1788	1774
80°	973	1497	1207
85°	682	587	142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	3.3
10°-20°	196.4	9.4
20°-30°	295.9	14.1
30°-40°	355.1	16.9
40°-50°	369.7	17.6
50°-60°	341.6	16.3
60°-70°	273.6	13.1
70°-80°	163.7	7.8
80°-90°	31.2	1.5
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°	561.0	26.8
0°-40°	916.1	43.7
0°-60°	1627.5	77.6
0°-90°	2096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2096.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	727	727	727	727	727	
5°	726	725	720	725	724	69
15°	692	692	693	702	702	195
25°	627	631	639	656	658	289
35°	539	547	566	589	595	337
45°	438	451	480	508	516	338
55°	330	348	386	415	426	296
65°	221	244	283	311	317	219
75°	112	140	172	174	171	119
85°	22	32	19	8	5	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	727.1	727.1	727.1	727.1	727.1
2.5°	729.6	727.5	722.9	727.5	726.4
5°	726.4	724.7	720.1	725.4	724.3
7.5°	721.2	719.8	716.2	721.9	720.8
10°	713.8	712.7	710.3	716.6	715.9
12.5°	703.6	704.0	702.6	710.3	709.6
15°	692.0	692.0	693.1	701.9	701.9
17.5°	678.3	679.0	681.1	692.7	693.1
20°	662.9	664.6	669.2	681.1	683.2
22.5°	646.4	648.5	654.8	668.9	672.0
25°	627.1	630.6	639.4	655.5	658.3
27.5°	606.7	612.0	622.9	640.4	643.9
30°	585.6	591.3	604.9	623.9	628.8
32.5°	562.8	570.2	586.7	606.7	612.3
35°	539.3	547.4	566.3	588.8	594.8
37.5°	515.8	524.5	546.0	570.2	576.2
40°	490.8	501.0	524.5	549.5	557.6
42.5°	464.5	475.7	501.7	529.1	536.8
45°	438.2	451.2	479.6	508.0	515.8
47.5°	412.5	425.9	456.8	486.3	494.4
50°	384.8	400.3	434.0	463.1	473.3
52.5°	357.8	375.0	410.4	439.9	450.1
55°	330.4	348.3	385.5	415.4	425.9
57.5°	303.7	322.7	362.0	391.5	398.9
60°	275.3	296.0	335.7	365.5	373.9
62.5°	248.6	270.0	310.0	338.8	346.9
65°	220.8	243.7	283.0	310.7	316.7
67.5°	194.9	217.7	257.4	281.2	287.2
70°	166.4	191.7	230.3	250.7	251.4
72.5°	139.4	165.0	202.6	215.6	213.8
75°	111.7	139.7	172.0	174.5	170.6
77.5°	86.7	114.8	136.9	129.2	121.5
80°	62.8	90.2	96.6	84.6	77.9
82.5°	41.4	63.2	58.3	41.8	35.8
85°	22.1	32.3	19.0	7.7	4.6
87.5°	8.4	5.6	2.1	1.8	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)