

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: P474790

Luminaire Tested: **22CZ2-20-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474790
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2141.9 lumens
Efficiency: N/A
Efficacy: 132.2 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

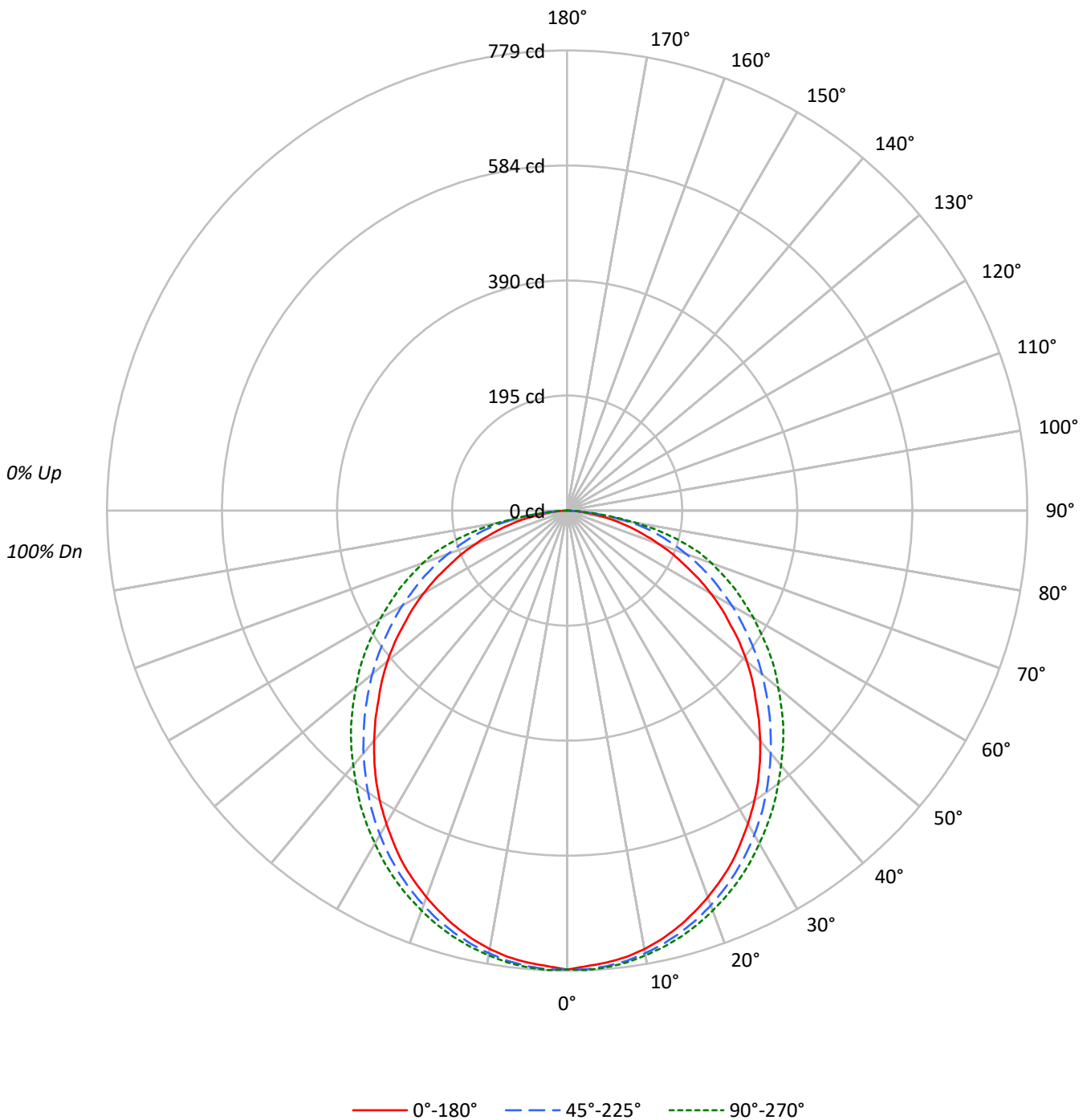
Input Watts (W): 16.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474790

CATALOG NUMBER: 22CZ2-20-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474790

CATALOG NUMBER: 22CZ2-20-UNV-L835-CD1-U

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°	2090	2090	2090
5°	2075	2091	2096
10°	2059	2079	2089
15°	2031	2061	2079
20°	1995	2036	2064
25°	1955	2005	2047
30°	1902	1969	2023
35°	1849	1927	2003
40°	1786	1884	1978
45°	1717	1842	1969
50°	1662	1804	1954
55°	1584	1765	1958
60°	1513	1735	1963
65°	1407	1712	1994
70°	1300	1688	2044
75°	1162	1680	2057
80°	975	1593	1796
85°	753	1090	1019



TEST NUMBER: P474790

CATALOG NUMBER: 22CZ2-20-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	3.4
10°-20°	208.3	9.7
20°-30°	310.6	14.5
30°-40°	366.7	17.1
40°-50°	373.7	17.4
50°-60°	337.0	15.7
60°-70°	264.9	12.4
70°-80°	165.9	7.7
80°-90°	41.4	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°	592.3	27.7
0°-40°	959.0	44.8
0°-60°	1669.8	78.0
0°-90°	2141.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2141.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	768	770	774	776	776	73
15°	729	732	740	745	746	205
25°	659	664	675	686	689	303
35°	563	570	587	603	610	352
45°	451	461	484	507	517	349
55°	338	348	376	405	417	303
65°	221	234	269	299	313	220
75°	112	129	162	191	198	119
85°	24	31	35	35	33	29
90°	0	0	0	0	0	



TEST NUMBER: P474790

CATALOG NUMBER: 22CZ2-20-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	776.8	776.8	776.8	776.8	776.8
2.5°	771.8	773.6	777.2	778.6	778.6
5°	768.2	770.0	774.1	775.9	775.9
7.5°	762.3	764.1	769.1	771.3	771.8
10°	753.7	755.9	760.9	764.5	764.5
12.5°	742.8	745.1	751.4	755.9	756.4
15°	729.2	732.4	739.7	745.1	746.4
17.5°	713.4	718.4	726.5	733.3	734.7
20°	696.6	701.6	711.1	718.8	720.6
22.5°	678.1	682.6	693.9	703.4	705.7
25°	658.6	663.6	675.4	685.8	689.4
27.5°	635.5	641.4	655.5	667.2	670.8
30°	612.0	619.2	633.7	646.9	650.9
32.5°	588.0	594.8	611.1	625.1	630.6
35°	562.7	569.9	586.7	602.9	609.7
37.5°	536.0	543.2	561.3	579.9	586.2
40°	508.3	516.9	536.4	556.3	563.1
42.5°	480.3	489.3	509.7	531.9	540.9
45°	451.3	461.3	483.9	507.4	517.4
47.5°	425.1	433.2	456.7	482.5	492.0
50°	397.0	404.7	430.9	456.7	466.7
52.5°	368.5	375.7	403.8	430.9	443.2
55°	337.7	348.1	376.2	405.1	417.4
57.5°	310.5	320.0	349.0	378.4	390.2
60°	281.1	291.1	322.3	352.2	364.8
62.5°	251.7	262.5	294.2	326.4	338.1
65°	220.9	234.5	268.9	298.8	313.2
67.5°	194.6	207.8	241.7	273.0	285.6
70°	165.2	180.6	214.6	246.2	259.8
72.5°	137.6	153.0	187.9	219.5	233.1
75°	111.8	128.6	161.6	190.6	197.8
77.5°	86.9	102.8	135.8	152.5	160.2
80°	62.9	78.3	102.8	114.1	115.9
82.5°	42.6	55.7	69.7	72.9	71.1
85°	24.4	31.2	35.3	35.3	33.0
87.5°	10.0	10.0	8.6	5.4	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)