

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: P474946

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474946
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20VHE-S-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2116.3 lumens
Efficiency: N/A
Efficacy: 153.4 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

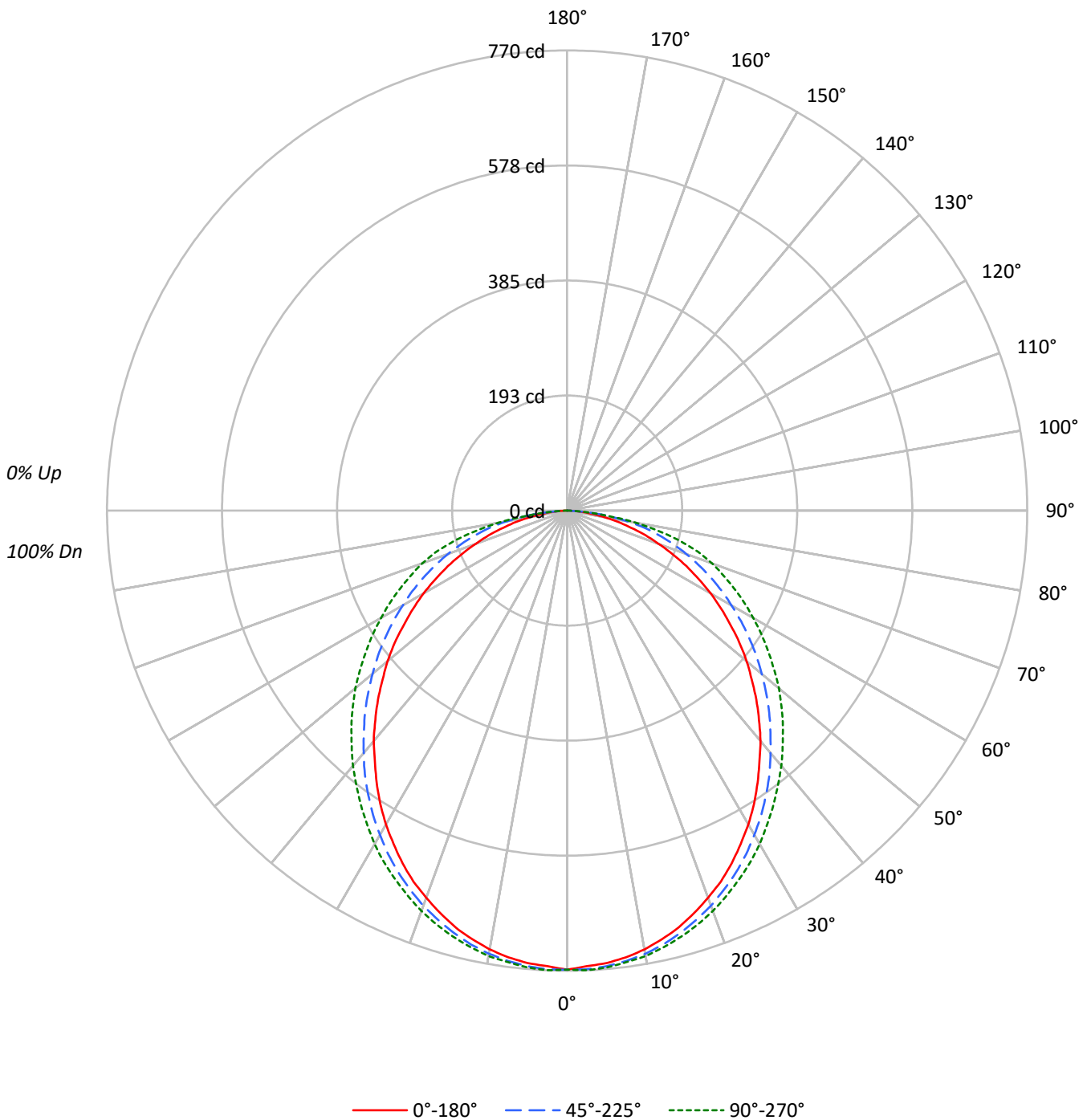
Input Watts (W): 13.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	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	74	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	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2067	2067	2067
5°	2053	2067	2072
10°	2038	2057	2068
15°	2012	2039	2056
20°	1974	2015	2042
25°	1934	1984	2021
30°	1884	1946	2002
35°	1826	1906	1977
40°	1768	1860	1959
45°	1703	1820	1943
50°	1642	1780	1936
55°	1564	1744	1927
60°	1494	1709	1935
65°	1402	1689	1963
70°	1282	1668	2027
75°	1150	1656	2028
80°	969	1564	1802
85°	729	1059	982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	3.4
10°-20°	206.1	9.7
20°-30°	307.2	14.5
30°-40°	362.5	17.1
40°-50°	369.4	17.5
50°-60°	333.1	15.7
60°-70°	261.6	12.4
70°-80°	163.6	7.7
80°-90°	40.3	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°	585.9	27.7
0°-40°	948.4	44.8
0°-60°	1650.8	78.0
0°-90°	2116.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2116.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	760	762	765	767	767	72
15°	722	725	732	737	738	203
25°	651	655	668	678	681	300
35°	556	563	580	596	602	348
45°	448	455	478	501	511	345
55°	333	344	372	400	411	299
65°	220	232	265	295	308	217
75°	111	126	159	186	195	118
85°	24	30	34	34	32	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	768.2	768.2	768.2	768.2	768.2
2.5°	763.1	764.6	768.2	769.8	769.8
5°	760.0	761.6	765.1	766.7	767.2
7.5°	753.9	755.9	760.0	762.1	762.1
10°	745.7	748.2	752.9	755.9	756.9
12.5°	734.4	737.5	743.6	747.2	748.2
15°	722.1	724.7	731.9	737.0	738.0
17.5°	706.2	710.3	718.0	724.7	726.2
20°	689.3	694.0	703.7	711.4	712.9
22.5°	671.9	675.5	686.3	695.5	697.5
25°	651.4	655.0	668.3	678.1	680.6
27.5°	628.9	635.1	648.4	659.6	663.7
30°	606.4	612.5	626.4	639.7	644.3
32.5°	581.8	588.5	604.3	618.2	622.8
35°	555.7	563.4	580.3	596.1	601.8
37.5°	528.5	537.2	556.2	573.1	579.2
40°	503.4	509.6	529.6	549.0	557.7
42.5°	475.3	483.5	503.4	525.5	533.7
45°	447.6	455.3	478.3	501.4	510.6
47.5°	418.9	428.7	451.7	477.3	486.5
50°	392.3	400.5	425.1	452.2	462.5
52.5°	363.6	372.3	399.0	427.1	436.3
55°	333.4	344.2	371.8	400.5	410.7
57.5°	305.7	316.0	345.2	374.9	385.6
60°	277.6	287.8	317.5	347.7	359.5
62.5°	247.9	259.7	291.9	321.1	334.4
65°	220.2	232.0	265.3	295.0	308.3
67.5°	191.0	204.9	238.1	269.4	282.7
70°	162.9	179.3	212.0	242.8	257.6
72.5°	137.8	151.1	185.4	217.7	230.0
75°	110.6	126.0	159.3	186.4	195.1
77.5°	87.6	100.9	132.6	150.6	156.2
80°	62.5	77.3	100.9	111.6	116.3
82.5°	41.5	53.8	68.6	70.7	69.7
85°	23.6	30.2	34.3	33.8	31.8
87.5°	9.2	10.2	7.7	4.6	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)