

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: P474824

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474824
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2068.5 lumens
Efficiency: N/A
Efficacy: 137.9 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

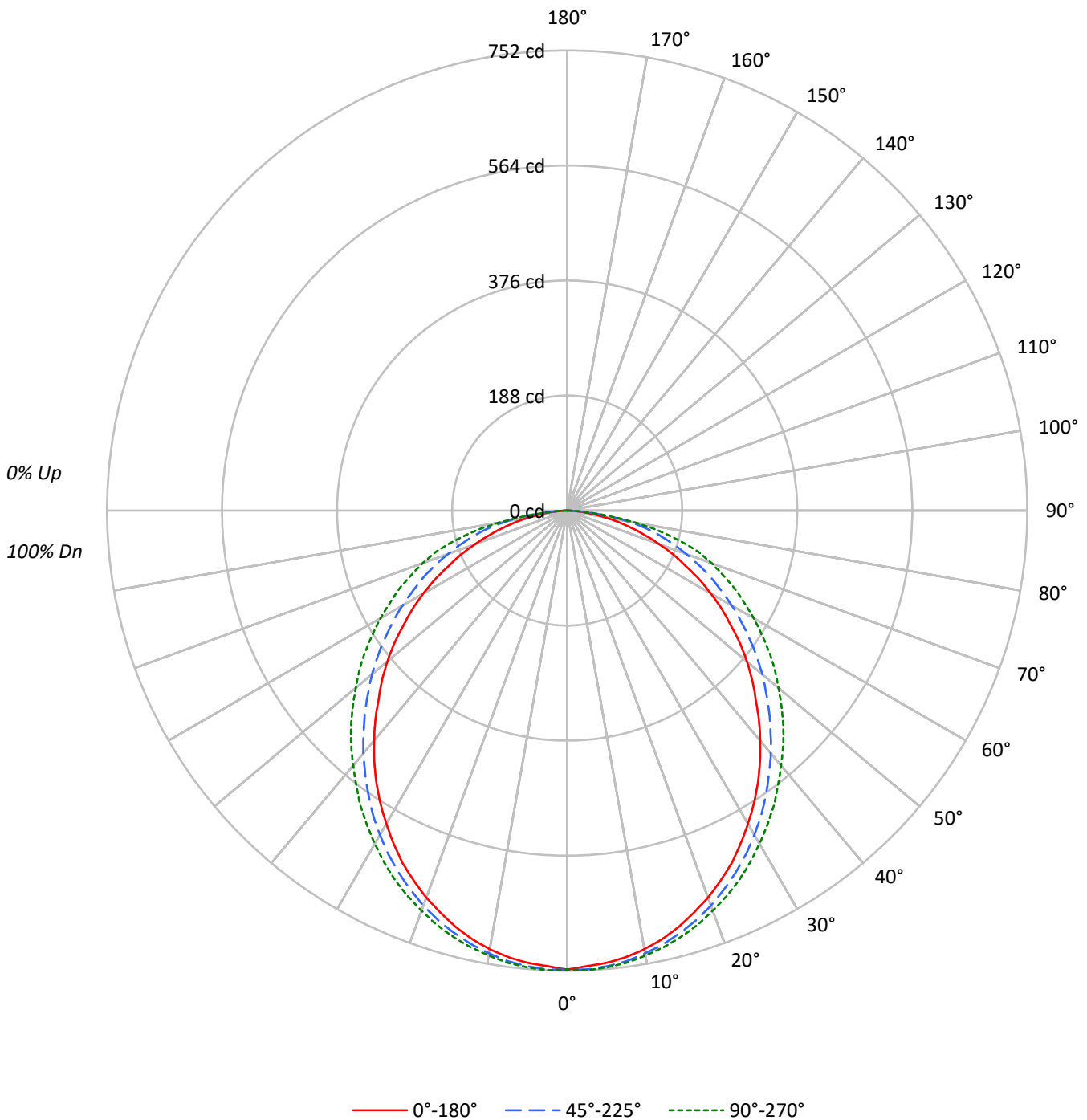
Input Watts (W): 15
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2019	2019	2019
5°	2004	2019	2024
10°	1989	2008	2017
15°	1962	1990	2008
20°	1927	1967	1993
25°	1888	1936	1977
30°	1836	1902	1953
35°	1785	1861	1934
40°	1724	1820	1910
45°	1658	1778	1902
50°	1605	1742	1887
55°	1530	1704	1891
60°	1461	1675	1896
65°	1358	1654	1926
70°	1256	1630	1974
75°	1123	1623	1986
80°	942	1537	1734
85°	729	1053	985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.9	3.4
10°-20°	201.2	9.7
20°-30°	300.0	14.5
30°-40°	354.1	17.1
40°-50°	360.9	17.4
50°-60°	325.5	15.7
60°-70°	255.8	12.4
70°-80°	160.2	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°	572.0	27.7
0°-40°	926.2	44.8
0°-60°	1612.6	78.0
0°-90°	2068.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2068.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	750	750	750	750	750	
5°	742	744	748	749	749	70
15°	704	707	714	720	721	198
25°	636	641	652	662	666	292
35°	543	550	566	582	589	340
45°	436	446	467	490	500	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°	750.1	750.1	750.1	750.1	750.1
2.5°	745.3	747.1	750.6	751.9	751.9
5°	741.8	743.6	747.5	749.3	749.3
7.5°	736.2	737.9	742.7	744.9	745.3
10°	727.8	730.0	734.8	738.3	738.3
12.5°	717.4	719.5	725.7	730.0	730.5
15°	704.2	707.3	714.3	719.5	720.9
17.5°	688.9	693.7	701.6	708.2	709.5
20°	672.8	677.6	686.8	694.2	695.9
22.5°	654.8	659.2	670.1	679.3	681.5
25°	636.0	640.9	652.2	662.3	665.8
27.5°	613.8	619.4	633.0	644.4	647.8
30°	591.0	598.0	612.0	624.7	628.6
32.5°	567.9	574.4	590.1	603.7	608.9
35°	543.4	550.4	566.5	582.3	588.8
37.5°	517.6	524.6	542.1	560.0	566.1
40°	490.9	499.2	518.0	537.3	543.8
42.5°	463.8	472.6	492.2	513.6	522.4
45°	435.8	445.5	467.3	490.0	499.7
47.5°	410.5	418.3	441.1	466.0	475.2
50°	383.4	390.8	416.2	441.1	450.7
52.5°	355.8	362.8	389.9	416.2	428.0
55°	326.1	336.2	363.3	391.2	403.0
57.5°	299.9	309.1	337.0	365.5	376.8
60°	271.5	281.1	311.2	340.1	352.3
62.5°	243.1	253.5	284.1	315.2	326.5
65°	213.3	226.4	259.7	288.5	302.5
67.5°	188.0	200.6	233.4	263.6	275.8
70°	159.6	174.4	207.2	237.8	250.9
72.5°	132.9	147.8	181.4	212.0	225.1
75°	108.0	124.1	156.1	184.0	191.0
77.5°	83.9	99.2	131.1	147.3	154.7
80°	60.8	75.6	99.2	110.2	111.9
82.5°	41.1	53.8	67.3	70.4	68.6
85°	23.6	30.2	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)