

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: P475288

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475288
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-SQR-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1965.2 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

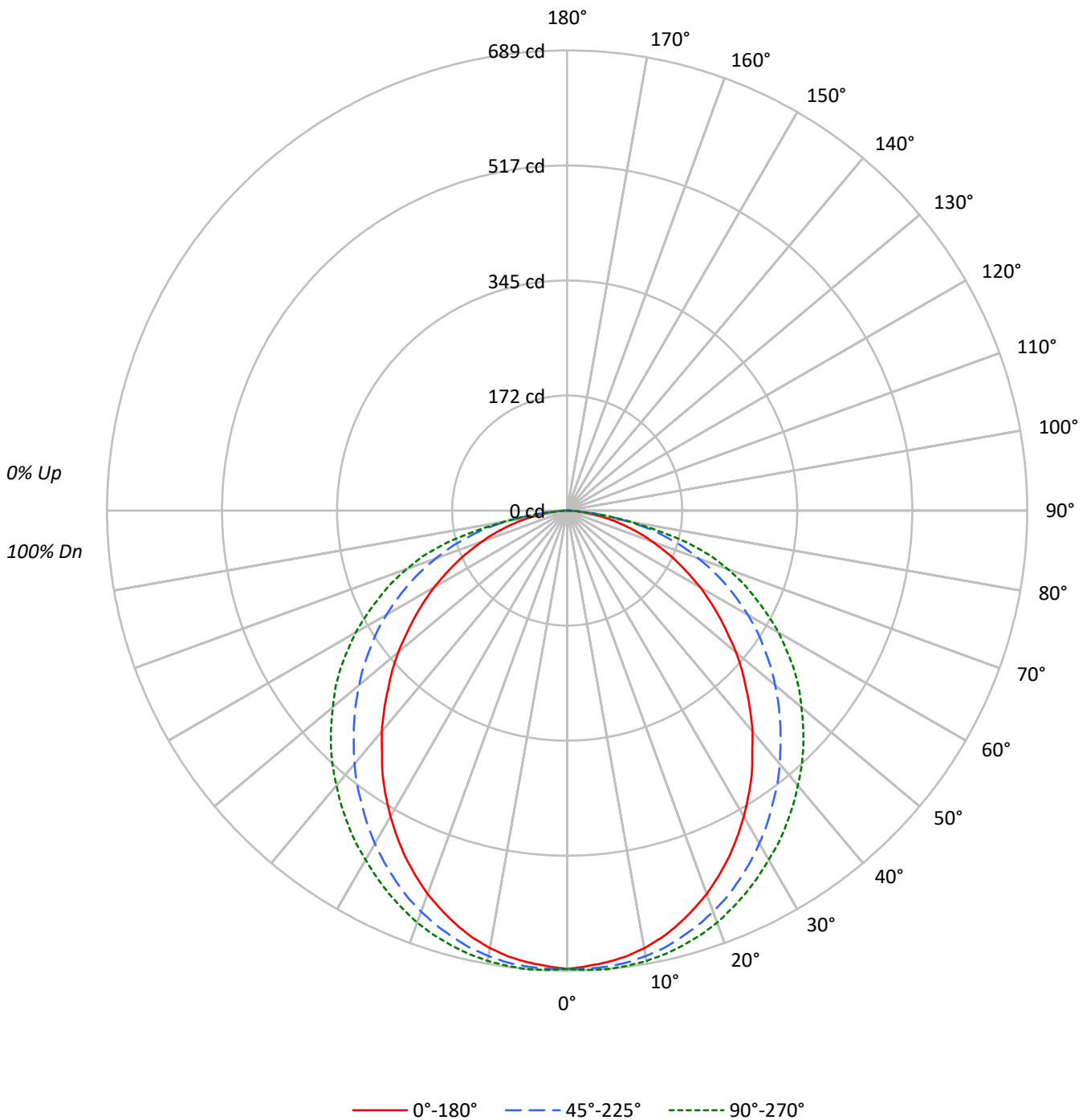
Input Watts (W): 15
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1847	1847	1847
5°	1834	1852	1862
10°	1817	1850	1871
15°	1788	1842	1876
20°	1749	1830	1880
25°	1700	1811	1878
30°	1643	1788	1875
35°	1584	1762	1881
40°	1517	1740	1887
45°	1445	1718	1903
50°	1382	1703	1917
55°	1308	1689	1947
60°	1240	1682	1968
65°	1158	1669	1983
70°	1064	1644	2011
75°	961	1600	1939
80°	824	1416	1460
85°	664	834	664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	3.3
10°-20°	186.1	9.5
20°-30°	279.5	14.2
30°-40°	333.3	17.0
40°-50°	344.6	17.5
50°-60°	316.8	16.1
60°-70°	252.2	12.8
70°-80°	154.1	7.8
80°-90°	33.5	1.7
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°	530.6	27.0
0°-40°	864.0	44.0
0°-60°	1525.4	77.6
0°-90°	1965.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1965.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	686	686	686	686	686	
5°	679	681	686	688	689	64
15°	642	649	661	671	674	181
25°	573	587	610	627	632	263
35°	482	503	536	564	573	301
45°	380	407	451	488	500	294
55°	279	310	360	401	415	249
65°	182	213	262	298	312	180
75°	92	119	154	181	186	98
85°	22	26	27	23	22	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	686.5	686.5	686.5	686.5	686.5
2.5°	682.7	683.7	686.5	688.4	688.4
5°	679.0	680.9	685.5	688.4	689.3
7.5°	673.5	676.2	682.7	686.5	687.5
10°	665.1	668.8	677.2	682.7	684.6
12.5°	654.8	660.3	670.7	678.1	680.0
15°	641.8	649.2	661.3	670.7	673.5
17.5°	626.8	636.1	651.1	662.3	666.0
20°	610.9	620.3	639.0	652.0	656.6
22.5°	592.3	604.4	625.9	640.8	644.6
25°	572.7	586.7	610.0	626.8	632.4
27.5°	551.3	568.1	593.3	613.8	618.4
30°	528.9	546.6	575.5	597.9	603.5
32.5°	505.5	526.1	556.8	582.0	589.5
35°	482.2	502.7	536.3	564.4	572.7
37.5°	455.2	479.4	516.8	545.7	555.9
40°	431.8	455.2	495.3	527.0	537.3
42.5°	405.7	430.9	472.9	507.4	519.6
45°	379.6	406.7	451.4	487.9	500.0
47.5°	355.4	382.4	429.0	467.3	479.4
50°	330.2	358.1	406.7	445.9	457.9
52.5°	303.1	333.9	384.3	423.5	437.5
55°	278.9	309.6	360.0	401.1	415.1
57.5°	253.7	285.4	337.7	376.8	389.9
60°	230.4	261.1	312.5	350.7	365.7
62.5°	205.2	236.9	287.2	324.6	338.6
65°	181.9	212.7	262.1	298.5	311.5
67.5°	158.5	189.4	235.9	270.5	285.4
70°	135.2	166.1	208.9	242.5	255.6
72.5°	114.8	141.8	182.8	213.6	225.7
75°	92.4	119.4	153.9	180.9	186.5
77.5°	71.8	96.1	125.0	137.1	139.0
80°	53.2	71.8	91.4	94.2	94.2
82.5°	35.4	49.4	56.9	57.8	56.9
85°	21.5	26.1	27.0	23.3	21.5
87.5°	7.4	7.4	4.6	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)