

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: P475230

Luminaire Tested: **22CZ2-20HE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475230
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-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1861.1 lumens
Efficiency: N/A
Efficacy: 124.1 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

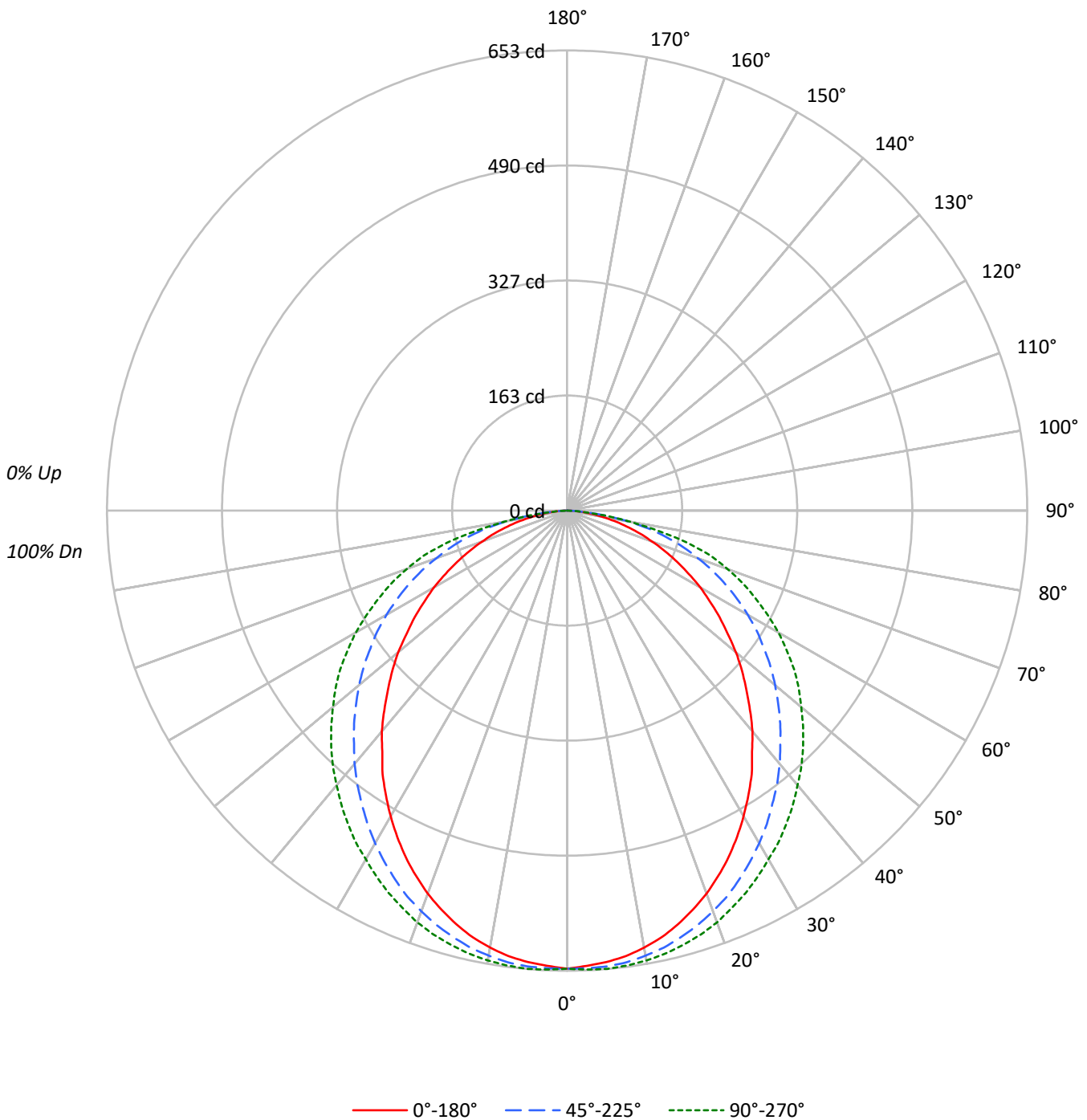
Input Watts (W): 15
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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°	1749	1749	1749
5°	1737	1754	1763
10°	1721	1752	1771
15°	1693	1745	1777
20°	1657	1733	1781
25°	1610	1715	1778
30°	1556	1693	1776
35°	1500	1668	1782
40°	1437	1648	1787
45°	1368	1627	1802
50°	1309	1612	1816
55°	1239	1599	1844
60°	1174	1593	1864
65°	1096	1580	1878
70°	1007	1556	1904
75°	910	1515	1836
80°	779	1342	1382
85°	627	790	627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.6	3.3
10°-20°	176.2	9.5
20°-30°	264.7	14.2
30°-40°	315.7	17.0
40°-50°	326.4	17.5
50°-60°	300.0	16.1
60°-70°	238.9	12.8
70°-80°	145.9	7.8
80°-90°	31.7	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°	502.5	27.0
0°-40°	818.2	44.0
0°-60°	1444.6	77.6
0°-90°	1861.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1861.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	643	645	649	652	653	61
15°	608	615	626	635	638	171
25°	542	556	578	594	599	249
35°	457	476	508	534	542	285
45°	360	385	428	462	474	278
55°	264	293	341	380	393	236
65°	172	201	248	283	295	171
75°	88	113	146	171	177	93
85°	20	25	26	22	20	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	650.1	650.1	650.1	650.1	650.1
2.5°	646.6	647.4	650.1	651.9	651.9
5°	643.0	644.8	649.2	651.9	652.8
7.5°	637.8	640.4	646.6	650.1	651.1
10°	629.8	633.4	641.3	646.6	648.3
12.5°	620.1	625.4	635.1	642.2	643.9
15°	607.8	614.8	626.2	635.1	637.8
17.5°	593.6	602.4	616.6	627.2	630.7
20°	578.5	587.4	605.1	617.4	621.8
22.5°	560.9	572.4	592.7	606.9	610.4
25°	542.4	555.6	577.7	593.6	598.9
27.5°	522.0	538.0	561.8	581.3	585.7
30°	500.8	517.6	545.0	566.2	571.5
32.5°	478.7	498.2	527.3	551.2	558.3
35°	456.6	476.1	507.9	534.5	542.4
37.5°	431.0	454.0	489.4	516.8	526.4
40°	409.0	431.0	469.1	499.1	508.8
42.5°	384.2	408.1	447.9	480.5	492.0
45°	359.5	385.1	427.5	462.0	473.5
47.5°	336.5	362.1	406.3	442.6	454.0
50°	312.7	339.2	385.1	422.2	433.7
52.5°	287.1	316.2	363.9	401.0	414.3
55°	264.1	293.2	340.9	379.8	393.1
57.5°	240.2	270.3	319.8	356.9	369.3
60°	218.2	247.3	296.0	332.1	346.3
62.5°	194.3	224.3	272.0	307.4	320.7
65°	172.2	201.4	248.2	282.7	295.0
67.5°	150.1	179.4	223.4	256.2	270.3
70°	128.0	157.3	197.8	229.7	242.0
72.5°	108.7	134.3	173.1	202.3	213.8
75°	87.5	113.1	145.7	171.3	176.6
77.5°	68.0	91.0	118.4	129.8	131.7
80°	50.3	68.0	86.6	89.2	89.2
82.5°	33.5	46.8	53.9	54.7	53.9
85°	20.3	24.7	25.6	22.1	20.3
87.5°	7.0	7.0	4.4	2.6	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)