

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: P475236

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475236
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20VHE-SQR-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1866.6 lumens
Efficiency: N/A
Efficacy: 135.3 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

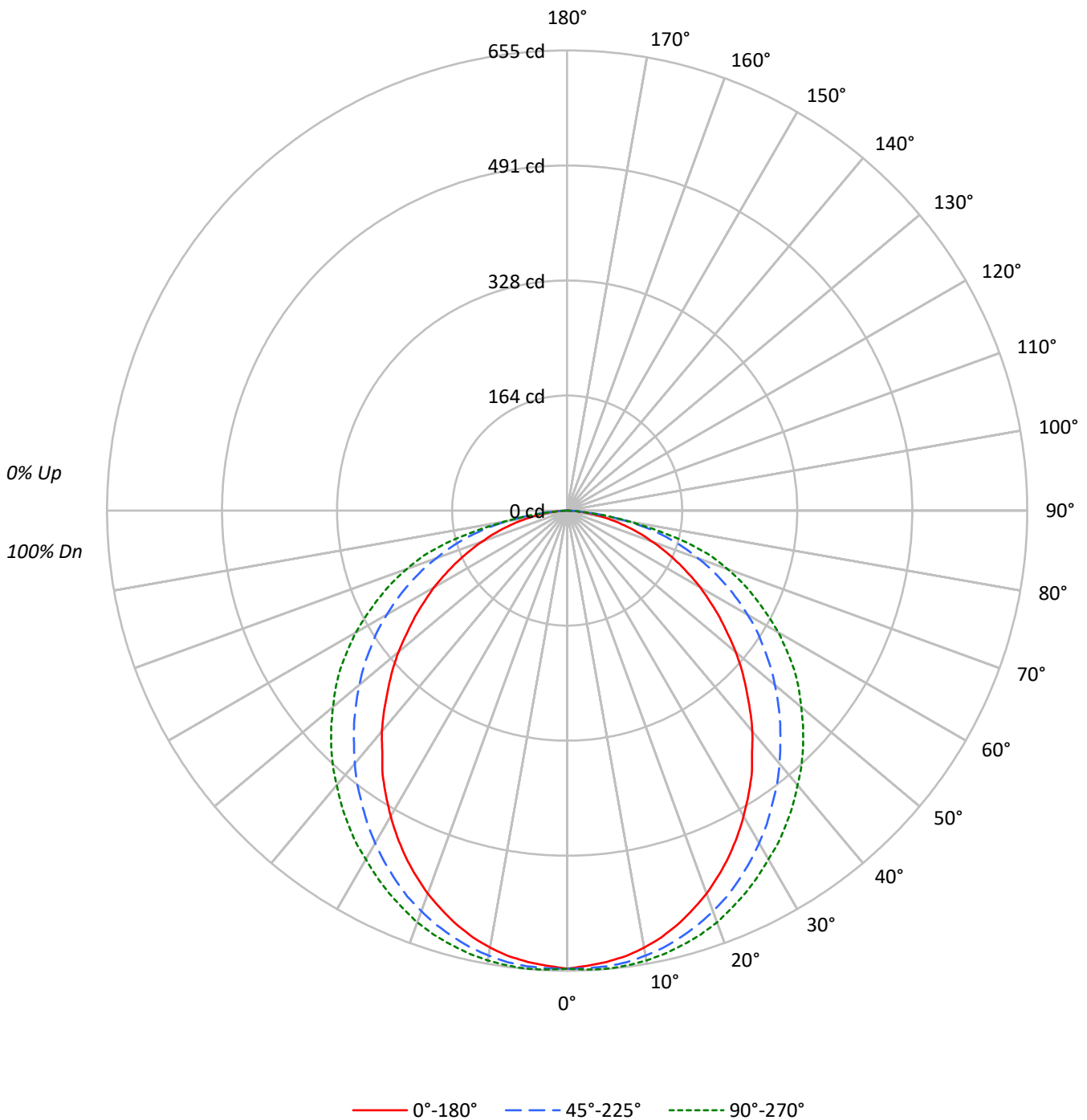
Input Watts (W): 13.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1755	1755	1755
5°	1742	1759	1769
10°	1726	1758	1777
15°	1698	1750	1782
20°	1662	1738	1786
25°	1615	1720	1783
30°	1561	1698	1781
35°	1505	1673	1787
40°	1441	1652	1793
45°	1372	1632	1807
50°	1313	1617	1821
55°	1243	1604	1850
60°	1178	1597	1869
65°	1100	1585	1884
70°	1010	1561	1910
75°	912	1520	1841
80°	783	1347	1387
85°	630	794	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	3.3
10°-20°	176.7	9.5
20°-30°	265.5	14.2
30°-40°	316.6	17.0
40°-50°	327.3	17.5
50°-60°	300.9	16.1
60°-70°	239.6	12.8
70°-80°	146.4	7.8
80°-90°	31.8	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°	504.0	27.0
0°-40°	820.6	44.0
0°-60°	1448.8	77.6
0°-90°	1866.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1866.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	652	652	652	652	652	
5°	645	647	651	654	655	61
15°	610	617	628	637	640	172
25°	544	557	579	595	601	250
35°	458	478	509	536	544	286
45°	361	386	429	463	475	279
55°	265	294	342	381	394	237
65°	173	202	249	284	296	171
75°	88	113	146	172	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°	652.0	652.0	652.0	652.0	652.0
2.5°	648.5	649.4	652.0	653.9	653.9
5°	644.9	646.7	651.1	653.9	654.7
7.5°	639.6	642.3	648.5	652.0	653.0
10°	631.7	635.2	643.2	648.5	650.2
12.5°	621.9	627.2	637.0	644.1	645.8
15°	609.6	616.6	628.1	637.0	639.6
17.5°	595.3	604.2	618.4	629.1	632.6
20°	580.2	589.2	606.9	619.3	623.7
22.5°	562.6	574.1	594.5	608.7	612.2
25°	544.0	557.2	579.4	595.3	600.6
27.5°	523.6	539.6	563.5	583.0	587.4
30°	502.3	519.2	546.6	567.9	573.2
32.5°	480.2	499.7	528.9	552.8	560.0
35°	458.0	477.5	509.4	536.0	544.0
37.5°	432.3	455.4	490.8	518.3	528.0
40°	410.2	432.3	470.4	500.5	510.3
42.5°	385.4	409.3	449.2	481.9	493.5
45°	360.6	386.2	428.8	463.4	474.9
47.5°	337.5	363.2	407.5	443.9	455.4
50°	313.6	340.2	386.2	423.5	435.0
52.5°	287.9	317.1	365.0	402.2	415.6
55°	264.9	294.1	341.9	380.9	394.3
57.5°	241.0	271.1	320.8	357.9	370.4
60°	218.8	248.0	296.8	333.1	347.3
62.5°	194.9	225.0	272.8	308.3	321.6
65°	172.7	202.0	248.9	283.5	295.9
67.5°	150.6	179.9	224.1	256.9	271.1
70°	128.4	157.7	198.4	230.4	242.7
72.5°	109.0	134.7	173.6	202.9	214.4
75°	87.7	113.4	146.2	171.8	177.1
77.5°	68.2	91.3	118.7	130.2	132.0
80°	50.5	68.2	86.9	89.5	89.5
82.5°	33.6	47.0	54.0	54.9	54.0
85°	20.4	24.8	25.7	22.2	20.4
87.5°	7.1	7.1	4.4	2.6	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)