

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: P474882

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

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474882  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20HE-S-UNV-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

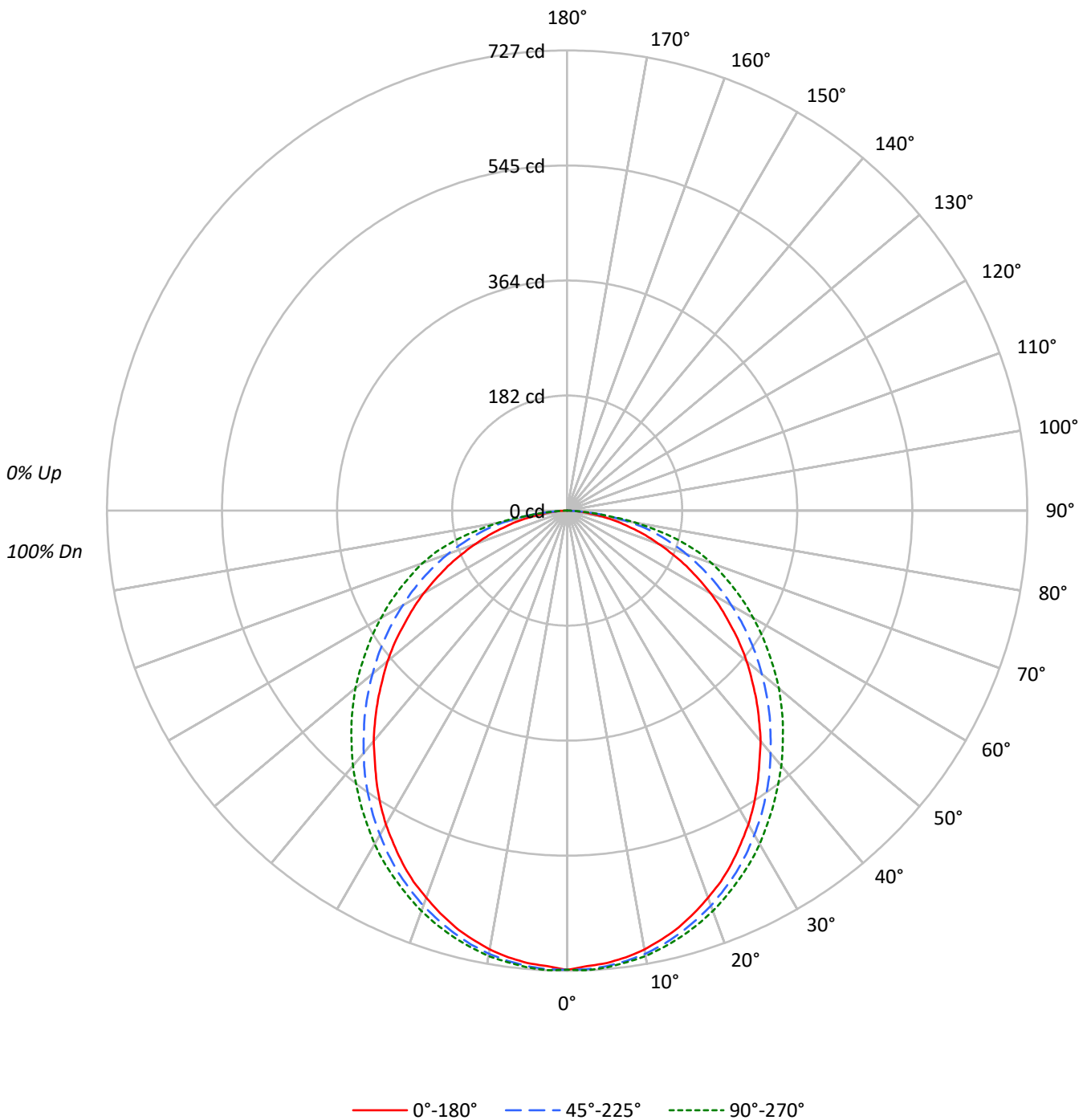
Lumens per Lamp: N/A  
Luminaire Lumens: 1998.3 lumens  
Efficiency: N/A  
Efficacy: 133.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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	88	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	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°	1952	1952	1952
5°	1938	1952	1957
10°	1924	1943	1953
15°	1899	1925	1941
20°	1864	1903	1928
25°	1826	1874	1908
30°	1779	1838	1890
35°	1724	1800	1867
40°	1670	1756	1850
45°	1608	1719	1835
50°	1551	1680	1828
55°	1477	1647	1819
60°	1411	1614	1827
65°	1324	1595	1854
70°	1210	1575	1913
75°	1087	1564	1915
80°	914	1477	1702
85°	685	1000	926



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.5	3.4
10°-20°	194.6	9.7
20°-30°	290.1	14.5
30°-40°	342.3	17.1
40°-50°	348.8	17.5
50°-60°	314.5	15.7
60°-70°	247.0	12.4
70°-80°	154.4	7.7
80°-90°	38.1	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°	553.2	27.7
0°-40°	895.5	44.8
0°-60°	1558.8	78.0
0°-90°	1998.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1998.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	718	719	722	724	724	68
15°	682	684	691	696	697	192
25°	615	618	631	640	643	283
35°	525	532	548	563	568	328
45°	423	430	452	473	482	326
55°	315	325	351	378	388	282
65°	208	219	250	278	291	205
75°	104	119	150	176	184	112
85°	22	28	32	32	30	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	725.4	725.4	725.4	725.4	725.4
2.5°	720.5	722.0	725.4	726.8	726.8
5°	717.6	719.1	722.5	723.9	724.4
7.5°	711.8	713.8	717.6	719.6	719.6
10°	704.1	706.5	710.9	713.8	714.7
12.5°	693.4	696.3	702.1	705.5	706.5
15°	681.8	684.3	691.0	695.9	696.8
17.5°	666.8	670.7	678.0	684.3	685.7
20°	650.9	655.2	664.4	671.7	673.1
22.5°	634.4	637.8	648.0	656.7	658.6
25°	615.1	618.5	631.1	640.3	642.7
27.5°	593.8	599.6	612.2	622.8	626.7
30°	572.6	578.4	591.4	604.0	608.3
32.5°	549.3	555.6	570.6	583.7	588.0
35°	524.7	531.9	547.9	562.9	568.2
37.5°	499.0	507.3	525.2	541.1	546.9
40°	475.4	481.2	500.0	518.4	526.6
42.5°	448.8	456.5	475.4	496.1	503.9
45°	422.6	429.9	451.7	473.4	482.1
47.5°	395.6	404.8	426.5	450.7	459.4
50°	370.4	378.2	401.4	427.0	436.7
52.5°	343.3	351.6	376.7	403.3	412.0
55°	314.8	325.0	351.1	378.2	387.8
57.5°	288.7	298.4	325.9	354.0	364.1
60°	262.1	271.8	299.8	328.3	339.5
62.5°	234.0	245.2	275.6	303.2	315.8
65°	207.9	219.1	250.5	278.5	291.1
67.5°	180.4	193.4	224.9	254.4	266.9
70°	153.8	169.3	200.2	229.2	243.2
72.5°	130.1	142.7	175.1	205.5	217.1
75°	104.5	119.0	150.4	176.0	184.2
77.5°	82.7	95.3	125.2	142.2	147.5
80°	59.0	73.0	95.3	105.4	109.8
82.5°	39.2	50.8	64.8	66.7	65.8
85°	22.2	28.5	32.4	31.9	30.0
87.5°	8.7	9.7	7.3	4.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)