

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: P474940

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

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474940  
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-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

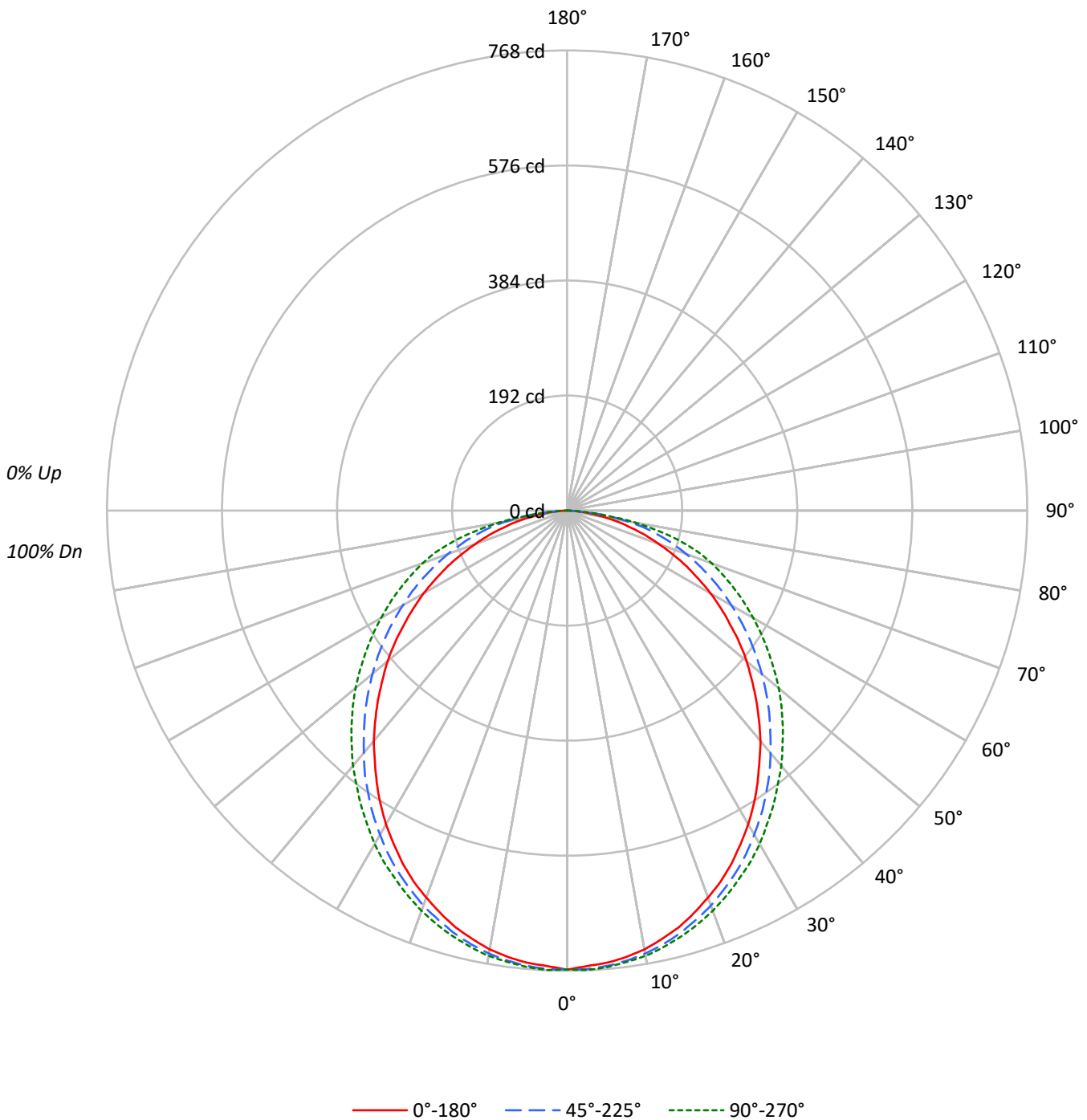
Lumens per Lamp: N/A  
Luminaire Lumens: 2110.1 lumens  
Efficiency: N/A  
Efficacy: 140.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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	86	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°	2061	2061	2061
5°	2047	2061	2066
10°	2032	2051	2062
15°	2006	2033	2050
20°	1968	2009	2036
25°	1928	1979	2015
30°	1879	1940	1996
35°	1820	1900	1971
40°	1763	1855	1953
45°	1698	1815	1937
50°	1637	1774	1930
55°	1559	1739	1921
60°	1490	1704	1929
65°	1398	1684	1957
70°	1278	1663	2020
75°	1147	1651	2023
80°	965	1559	1796
85°	726	1056	979



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.3	3.4
10°-20°	205.5	9.7
20°-30°	306.3	14.5
30°-40°	361.5	17.1
40°-50°	368.3	17.5
50°-60°	332.1	15.7
60°-70°	260.8	12.4
70°-80°	163.1	7.7
80°-90°	40.2	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°	584.1	27.7
0°-40°	945.6	44.8
0°-60°	1646.0	78.0
0°-90°	2110.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2110.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	758	759	763	764	765	72
15°	720	722	730	735	736	203
25°	650	653	666	676	679	299
35°	554	562	578	594	600	346
45°	446	454	477	500	509	344
55°	332	343	371	399	410	298
65°	220	231	264	294	307	217
75°	110	126	159	186	195	118
85°	24	30	34	34	32	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	766.0	766.0	766.0	766.0	766.0
2.5°	760.8	762.4	766.0	767.5	767.5
5°	757.8	759.3	762.9	764.4	764.9
7.5°	751.7	753.7	757.8	759.8	759.8
10°	743.5	746.0	750.6	753.7	754.7
12.5°	732.2	735.3	741.4	745.0	746.0
15°	720.0	722.5	729.7	734.8	735.8
17.5°	704.2	708.2	715.9	722.5	724.1
20°	687.3	691.9	701.6	709.3	710.8
22.5°	670.0	673.5	684.3	693.4	695.5
25°	649.5	653.1	666.4	676.1	678.6
27.5°	627.1	633.2	646.5	657.7	661.8
30°	604.6	610.7	624.5	637.8	642.4
32.5°	580.1	586.7	602.5	616.3	620.9
35°	554.0	561.7	578.5	594.4	600.0
37.5°	527.0	535.7	554.5	571.4	577.5
40°	502.0	508.1	528.0	547.4	556.1
42.5°	473.9	482.0	502.0	523.9	532.1
45°	446.3	454.0	476.9	499.9	509.1
47.5°	417.7	427.4	450.4	475.9	485.1
50°	391.1	399.3	423.8	450.9	461.1
52.5°	362.6	371.2	397.8	425.9	435.1
55°	332.4	343.1	370.7	399.3	409.5
57.5°	304.8	315.1	344.2	373.8	384.5
60°	276.8	287.0	316.6	346.7	358.5
62.5°	247.1	258.9	291.1	320.2	333.4
65°	219.6	231.3	264.5	294.1	307.4
67.5°	190.5	204.3	237.4	268.6	281.9
70°	162.4	178.7	211.4	242.0	256.8
72.5°	137.4	150.6	184.8	217.0	229.3
75°	110.3	125.6	158.8	185.9	194.6
77.5°	87.3	100.6	132.3	150.1	155.7
80°	62.3	77.1	100.6	111.3	115.9
82.5°	41.4	53.6	68.4	70.5	69.4
85°	23.5	30.1	34.2	33.7	31.7
87.5°	9.2	10.2	7.7	4.6	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)