

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: P474935

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474935
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20-S-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

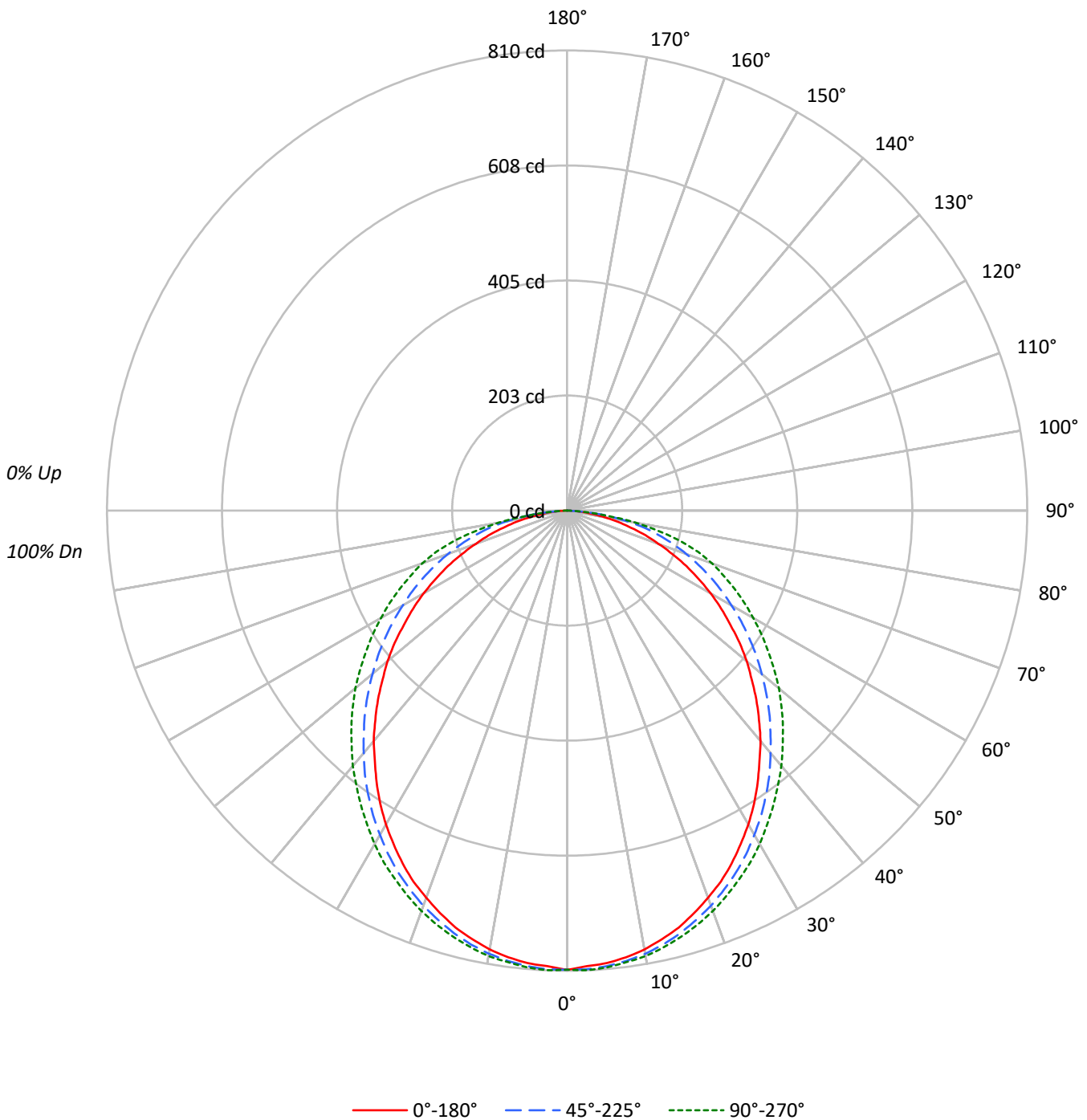
Lumens per Lamp: N/A
Luminaire Lumens: 2226.5 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.2
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°	2175	2175	2175
5°	2160	2175	2180
10°	2144	2164	2176
15°	2116	2145	2163
20°	2077	2120	2148
25°	2035	2088	2126
30°	1982	2048	2106
35°	1920	2006	2080
40°	1860	1957	2061
45°	1792	1915	2044
50°	1728	1872	2037
55°	1646	1835	2027
60°	1572	1798	2035
65°	1475	1777	2066
70°	1348	1755	2132
75°	1210	1743	2135
80°	1018	1644	1895
85°	766	1115	1031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.3	3.4
10°-20°	216.8	9.7
20°-30°	323.2	14.5
30°-40°	381.4	17.1
40°-50°	388.6	17.5
50°-60°	350.4	15.7
60°-70°	275.2	12.4
70°-80°	172.1	7.7
80°-90°	42.4	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°	616.4	27.7
0°-40°	997.7	44.8
0°-60°	1736.8	78.0
0°-90°	2226.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2226.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	800	801	805	807	807	76
15°	760	762	770	775	776	214
25°	685	689	703	713	716	315
35°	585	593	610	627	633	366
45°	471	479	503	528	537	363
55°	351	362	391	421	432	315
65°	232	244	279	310	324	229
75°	116	132	168	196	205	124
85°	25	32	36	36	33	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.2	808.2	808.2	808.2	808.2
2.5°	802.8	804.4	808.2	809.8	809.8
5°	799.6	801.2	805.0	806.6	807.1
7.5°	793.1	795.3	799.6	801.7	801.7
10°	784.5	787.2	792.0	795.3	796.4
12.5°	772.6	775.9	782.3	786.1	787.2
15°	759.7	762.4	770.0	775.3	776.4
17.5°	743.0	747.3	755.4	762.4	764.0
20°	725.2	730.1	740.3	748.4	750.0
22.5°	706.9	710.7	722.0	731.7	733.9
25°	685.4	689.1	703.1	713.4	716.1
27.5°	661.7	668.1	682.1	694.0	698.3
30°	637.9	644.4	659.0	673.0	677.8
32.5°	612.1	619.1	635.8	650.3	655.2
35°	584.6	592.7	610.5	627.2	633.1
37.5°	556.0	565.2	585.1	602.9	609.4
40°	529.6	536.1	557.1	577.6	586.8
42.5°	500.0	508.6	529.6	552.8	561.4
45°	470.9	479.0	503.2	527.5	537.2
47.5°	440.7	451.0	475.2	502.2	511.9
50°	412.7	421.3	447.2	475.8	486.5
52.5°	382.6	391.7	419.7	449.4	459.1
55°	350.8	362.1	391.2	421.3	432.1
57.5°	321.7	332.4	363.2	394.4	405.7
60°	292.0	302.8	334.1	365.9	378.2
62.5°	260.8	273.2	307.1	337.8	351.8
65°	231.7	244.1	279.1	310.4	324.4
67.5°	201.0	215.5	250.5	283.4	297.4
70°	171.3	188.6	223.1	255.4	271.0
72.5°	144.9	158.9	195.0	229.0	241.9
75°	116.4	132.5	167.6	196.1	205.3
77.5°	92.1	106.1	139.6	158.4	164.3
80°	65.7	81.4	106.1	117.5	122.3
82.5°	43.6	56.6	72.2	74.4	73.3
85°	24.8	31.8	36.1	35.6	33.4
87.5°	9.7	10.8	8.1	4.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)