

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: P474913

Luminaire Tested: **22CZ2-29HE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474913  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-29HE-S-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3041.8 lumens  
Efficiency: N/A  
Efficacy: 145.5 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

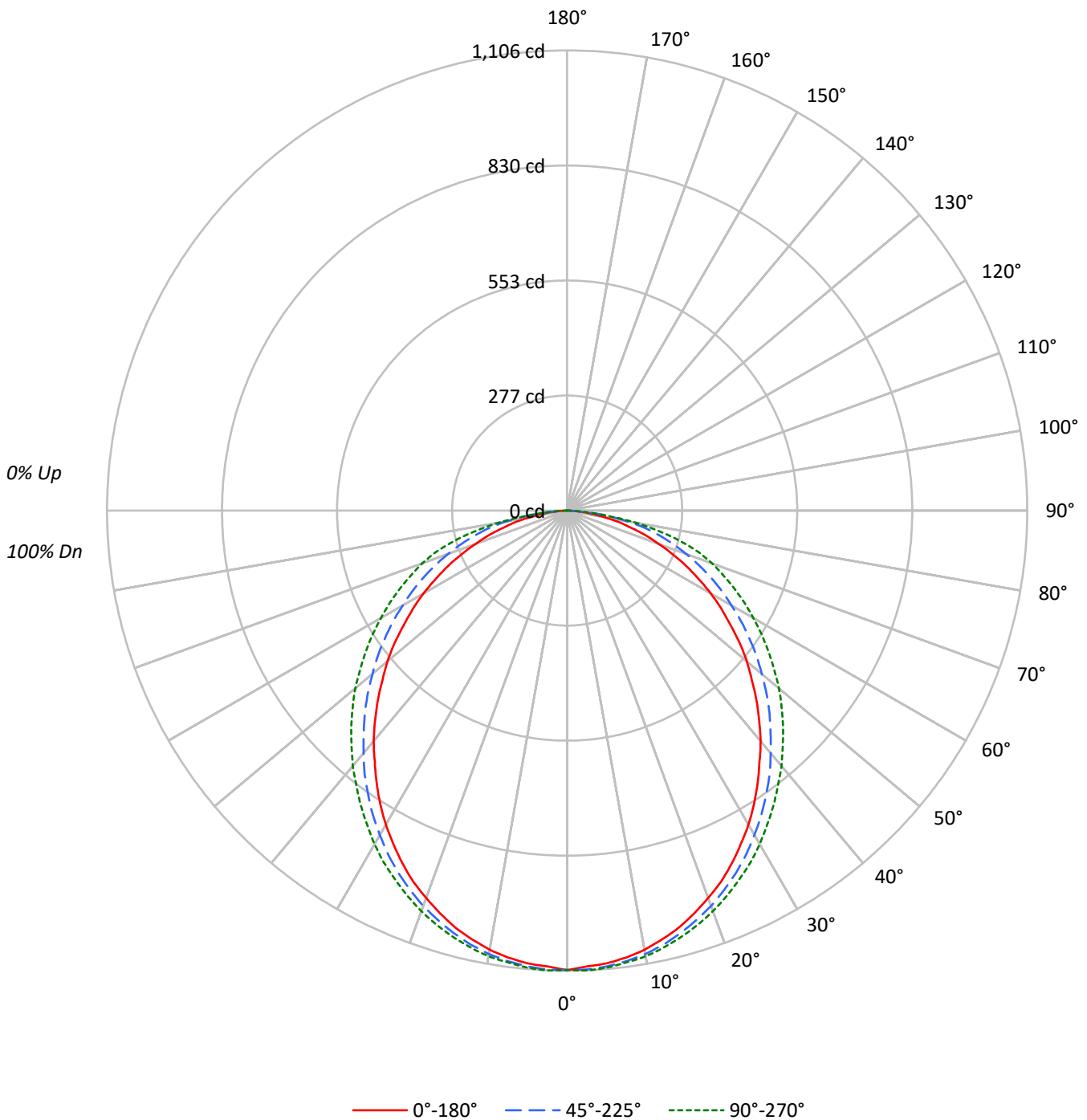
Input Watts (W): 20.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2971	2971	2971
5°	2951	2971	2979
10°	2929	2957	2973
15°	2891	2930	2955
20°	2837	2896	2934
25°	2780	2852	2905
30°	2708	2797	2877
35°	2624	2740	2841
40°	2542	2674	2816
45°	2449	2616	2793
50°	2361	2558	2783
55°	2248	2507	2770
60°	2147	2456	2781
65°	2015	2428	2821
70°	1842	2398	2913
75°	1653	2380	2916
80°	1392	2247	2590
85°	1047	1522	1408



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.3	3.4
10°-20°	296.2	9.7
20°-30°	441.6	14.5
30°-40°	521.1	17.1
40°-50°	530.9	17.5
50°-60°	478.8	15.7
60°-70°	376.0	12.4
70°-80°	235.1	7.7
80°-90°	57.9	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°	842.1	27.7
0°-40°	1363.1	44.8
0°-60°	2372.8	78.0
0°-90°	3041.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3041.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1092	1095	1100	1102	1103	104
15°	1038	1042	1052	1059	1061	292
25°	936	942	961	975	978	431
35°	799	810	834	857	865	499
45°	643	654	688	721	734	496
55°	479	495	534	576	590	430
65°	316	334	381	424	443	313
75°	159	181	229	268	280	170
85°	34	43	49	49	46	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1104.2	1104.2	1104.2	1104.2	1104.2
2.5°	1096.8	1099.0	1104.2	1106.4	1106.4
5°	1092.4	1094.6	1099.8	1102.0	1102.7
7.5°	1083.6	1086.5	1092.4	1095.3	1095.3
10°	1071.8	1075.5	1082.1	1086.5	1088.0
12.5°	1055.6	1060.0	1068.8	1074.0	1075.5
15°	1037.9	1041.6	1051.9	1059.3	1060.7
17.5°	1015.1	1021.0	1032.0	1041.6	1043.8
20°	990.8	997.4	1011.4	1022.5	1024.7
22.5°	965.8	970.9	986.4	999.6	1002.6
25°	936.3	941.5	960.6	974.6	978.3
27.5°	904.0	912.8	931.9	948.1	954.0
30°	871.6	880.4	900.3	919.4	926.0
32.5°	836.2	845.8	868.6	888.5	895.1
35°	798.7	809.7	834.0	856.8	864.9
37.5°	759.7	772.2	799.4	823.7	832.5
40°	723.6	732.4	761.1	789.1	801.6
42.5°	683.1	694.9	723.6	755.3	767.0
45°	643.4	654.4	687.5	720.7	733.9
47.5°	602.1	616.1	649.3	686.1	699.3
50°	563.9	575.6	611.0	650.0	664.7
52.5°	522.6	535.2	573.4	613.9	627.2
55°	479.2	494.7	534.4	575.6	590.4
57.5°	439.5	454.2	496.1	538.8	554.3
60°	399.0	413.7	456.4	499.8	516.8
62.5°	356.3	373.2	419.6	461.5	480.7
65°	316.5	333.5	381.3	424.0	443.1
67.5°	274.6	294.4	342.3	387.2	406.3
70°	234.1	257.6	304.8	348.9	370.3
72.5°	198.0	217.2	266.5	312.9	330.5
75°	159.0	181.1	228.9	267.9	280.5
77.5°	125.9	145.0	190.7	216.4	224.5
80°	89.8	111.2	145.0	160.5	167.1
82.5°	59.6	77.3	98.6	101.6	100.1
85°	33.9	43.4	49.3	48.6	45.6
87.5°	13.3	14.7	11.0	6.6	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)