

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: P474774

Luminaire Tested: **22CZ2-29VHE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474774
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2821.6 lumens
Efficiency: N/A
Efficacy: 141.8 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

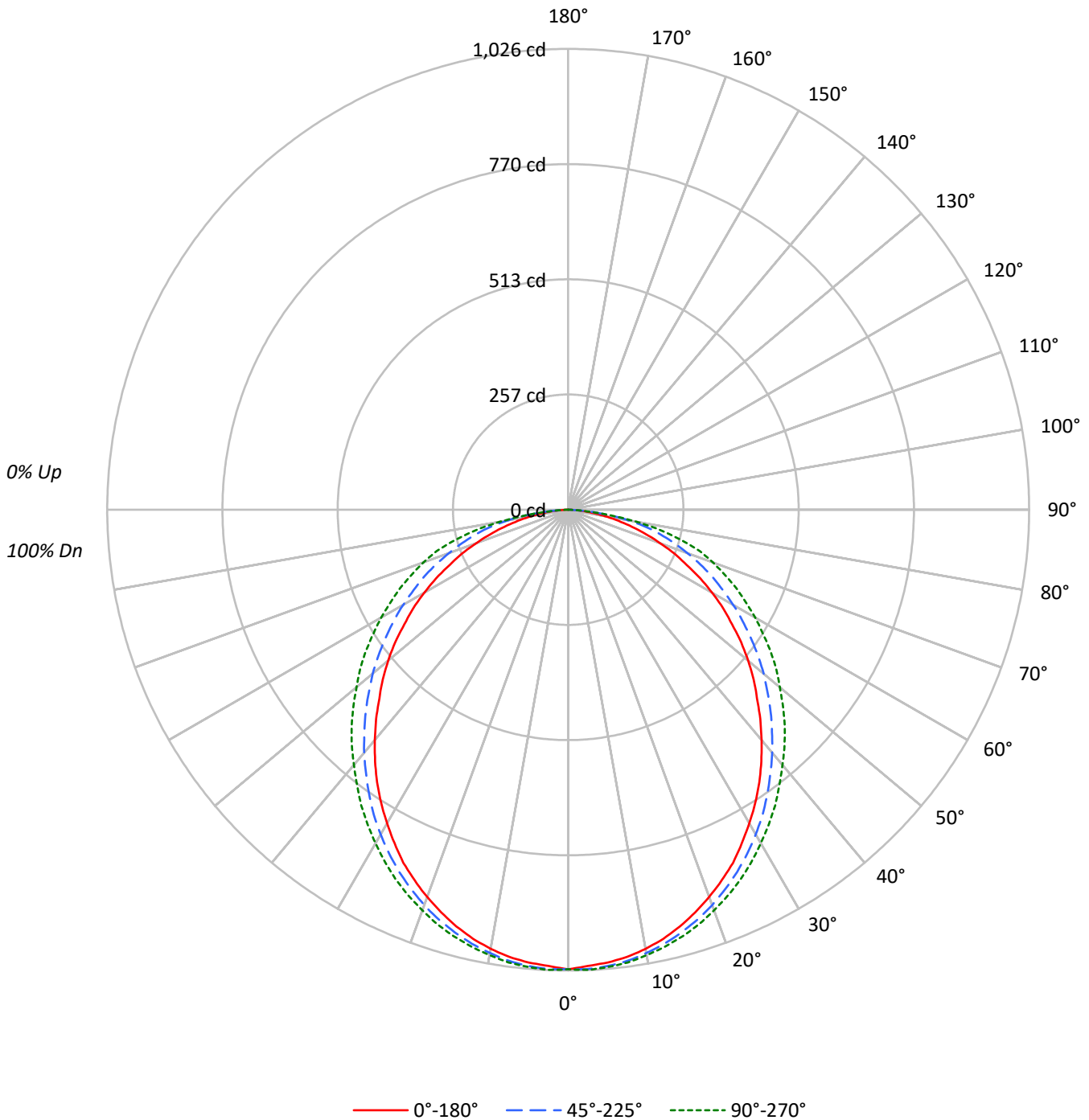
Input Watts (W): 19.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50					50			
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2753	2753	2753
5°	2733	2754	2761
10°	2713	2739	2752
15°	2676	2714	2739
20°	2628	2683	2718
25°	2576	2642	2697
30°	2505	2594	2664
35°	2435	2539	2639
40°	2352	2482	2606
45°	2262	2426	2594
50°	2189	2377	2574
55°	2087	2325	2579
60°	1993	2285	2587
65°	1853	2255	2627
70°	1712	2223	2693
75°	1531	2214	2709
80°	1285	2098	2366
85°	994	1436	1343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	3.4
10°-20°	274.4	9.7
20°-30°	409.2	14.5
30°-40°	483.1	17.1
40°-50°	492.3	17.4
50°-60°	444.0	15.7
60°-70°	349.0	12.4
70°-80°	218.5	7.7
80°-90°	54.5	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°	780.3	27.7
0°-40°	1263.3	44.8
0°-60°	2199.6	78.0
0°-90°	2821.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2821.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1023	1023	1023	1023	1023	
5°	1012	1014	1020	1022	1022	96
15°	961	965	974	982	983	271
25°	868	874	890	903	908	399
35°	741	751	773	794	803	463
45°	594	608	637	668	682	460
55°	445	458	496	534	550	399
65°	291	309	354	394	413	290
75°	147	169	213	251	261	156
85°	32	41	46	46	44	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1023.2	1023.2	1023.2	1023.2	1023.2
2.5°	1016.7	1019.1	1023.8	1025.6	1025.6
5°	1011.9	1014.3	1019.7	1022.0	1022.0
7.5°	1004.2	1006.5	1013.1	1016.1	1016.7
10°	992.8	995.8	1002.4	1007.1	1007.1
12.5°	978.5	981.5	989.8	995.8	996.4
15°	960.6	964.8	974.3	981.5	983.3
17.5°	939.8	946.3	957.1	966.0	967.8
20°	917.7	924.3	936.8	946.9	949.3
22.5°	893.2	899.2	914.1	926.6	929.6
25°	867.6	874.2	889.7	903.4	908.2
27.5°	837.2	844.9	863.4	878.9	883.7
30°	806.2	815.7	834.8	852.1	857.5
32.5°	774.6	783.5	805.0	823.5	830.6
35°	741.2	750.7	772.8	794.3	803.2
37.5°	706.0	715.6	739.4	763.9	772.2
40°	669.6	681.0	706.6	732.8	741.8
42.5°	632.7	644.6	671.4	700.6	712.6
45°	594.5	607.6	637.4	668.4	681.6
47.5°	559.9	570.7	601.7	635.6	648.2
50°	522.9	533.1	567.7	601.7	614.8
52.5°	485.4	494.9	531.9	567.7	583.8
55°	444.8	458.5	495.5	533.7	549.8
57.5°	409.1	421.6	459.7	498.5	514.0
60°	370.3	383.4	424.6	463.9	480.6
62.5°	331.5	345.9	387.6	429.9	445.4
65°	291.0	308.9	354.2	393.6	412.6
67.5°	256.4	273.7	318.4	359.6	376.3
70°	217.6	237.9	282.6	324.4	342.3
72.5°	181.3	201.5	247.5	289.2	307.1
75°	147.3	169.3	212.9	251.0	260.6
77.5°	114.5	135.4	178.9	201.0	211.1
80°	82.9	103.2	135.4	150.3	152.7
82.5°	56.1	73.3	91.8	96.0	93.6
85°	32.2	41.1	46.5	46.5	43.5
87.5°	13.1	13.1	11.3	7.2	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)