

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: P474826

Luminaire Tested: **22CZ2-29HE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474826
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3038.5 lumens
Efficiency: N/A
Efficacy: 145.4 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

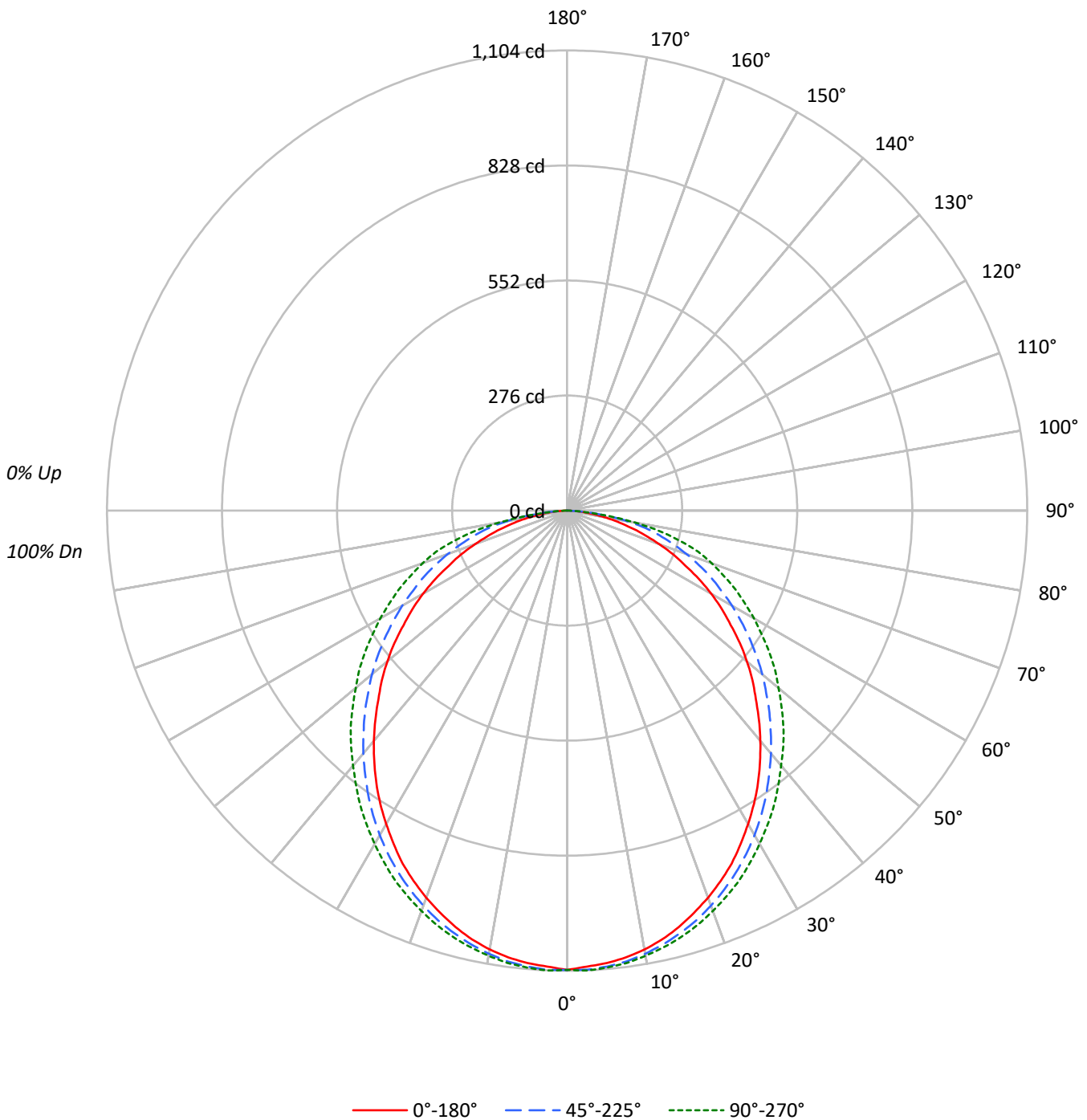
Input Watts (W): 20.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	87	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	73	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	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2965	2965	2965
5°	2944	2966	2973
10°	2922	2950	2964
15°	2882	2923	2950
20°	2830	2889	2928
25°	2774	2845	2904
30°	2698	2793	2869
35°	2622	2734	2842
40°	2533	2673	2806
45°	2436	2613	2793
50°	2358	2559	2772
55°	2247	2503	2778
60°	2146	2461	2786
65°	1996	2429	2830
70°	1844	2395	2900
75°	1649	2383	2917
80°	1384	2259	2548
85°	1071	1547	1448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.1	3.4
10°-20°	295.5	9.7
20°-30°	440.7	14.5
30°-40°	520.2	17.1
40°-50°	530.2	17.4
50°-60°	478.1	15.7
60°-70°	375.8	12.4
70°-80°	235.3	7.7
80°-90°	58.7	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°	840.3	27.7
0°-40°	1360.5	44.8
0°-60°	2368.8	78.0
0°-90°	3038.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3038.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1090	1092	1098	1101	1101	103
15°	1034	1039	1049	1057	1059	291
25°	934	941	958	973	978	430
35°	798	808	832	855	865	499
45°	640	654	686	720	734	495
55°	479	494	534	575	592	430
65°	313	333	381	424	444	312
75°	159	182	229	270	281	168
85°	35	44	50	50	47	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1101.9	1101.9	1101.9	1101.9	1101.9
2.5°	1094.9	1097.4	1102.6	1104.5	1104.5
5°	1089.7	1092.3	1098.1	1100.6	1100.6
7.5°	1081.4	1084.0	1091.0	1094.2	1094.9
10°	1069.2	1072.4	1079.5	1084.6	1084.6
12.5°	1053.8	1057.0	1066.0	1072.4	1073.0
15°	1034.5	1039.0	1049.3	1057.0	1058.9
17.5°	1012.0	1019.1	1030.7	1040.3	1042.2
20°	988.3	995.3	1008.8	1019.7	1022.3
22.5°	961.9	968.4	984.4	997.9	1001.1
25°	934.3	941.4	958.1	972.9	978.0
27.5°	901.6	909.9	929.8	946.5	951.7
30°	868.2	878.5	899.0	917.6	923.4
32.5°	834.2	843.8	866.9	886.8	894.5
35°	798.2	808.5	832.2	855.3	865.0
37.5°	760.3	770.6	796.3	822.6	831.6
40°	721.1	733.3	760.9	789.2	798.8
42.5°	681.3	694.2	723.1	754.5	767.4
45°	640.2	654.4	686.5	719.9	734.0
47.5°	603.0	614.5	647.9	684.5	698.0
50°	563.2	574.1	611.3	647.9	662.1
52.5°	522.7	533.0	572.8	611.3	628.7
55°	479.0	493.8	533.6	574.7	592.1
57.5°	440.5	454.0	495.1	536.8	553.5
60°	398.8	412.9	457.2	499.6	517.6
62.5°	357.0	372.4	417.4	463.0	479.7
65°	313.4	332.6	381.4	423.8	444.4
67.5°	276.1	294.7	342.9	387.2	405.2
70°	234.4	256.2	304.4	349.3	368.6
72.5°	195.2	217.0	266.5	311.4	330.7
75°	158.6	182.4	229.2	270.3	280.6
77.5°	123.3	145.8	192.6	216.4	227.3
80°	89.3	111.1	145.8	161.8	164.4
82.5°	60.4	79.0	98.9	103.4	100.8
85°	34.7	44.3	50.1	50.1	46.9
87.5°	14.1	14.1	12.2	7.7	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)