

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: P475290

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475290
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-SQR-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2886.8 lumens
Efficiency: N/A
Efficacy: 138.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

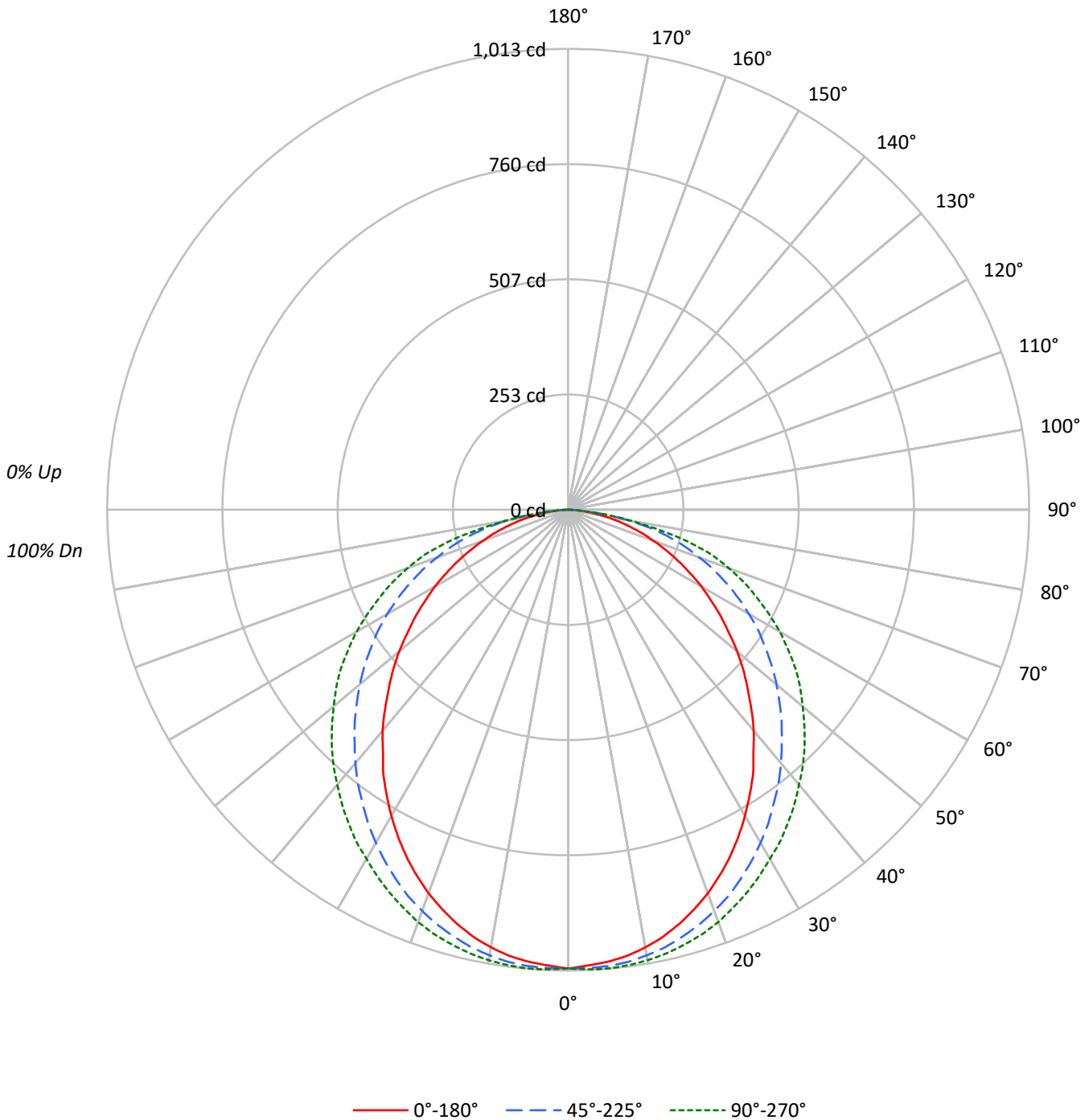
Input Watts (W): 20.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2714	2714	2714
5°	2695	2720	2735
10°	2670	2718	2748
15°	2626	2706	2756
20°	2570	2688	2762
25°	2498	2660	2758
30°	2414	2627	2755
35°	2327	2588	2764
40°	2229	2556	2773
45°	2122	2524	2795
50°	2030	2501	2816
55°	1922	2481	2861
60°	1821	2471	2891
65°	1701	2451	2914
70°	1563	2415	2954
75°	1411	2351	2849
80°	1210	2081	2145
85°	973	1226	973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.6	3.3
10°-20°	273.3	9.5
20°-30°	410.5	14.2
30°-40°	489.6	17.0
40°-50°	506.2	17.5
50°-60°	465.4	16.1
60°-70°	370.5	12.8
70°-80°	226.4	7.8
80°-90°	49.2	1.7
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°	779.5	27.0
0°-40°	1269.1	44.0
0°-60°	2240.8	77.6
0°-90°	2886.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2886.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	998	1000	1007	1011	1013	95
15°	943	954	971	985	989	265
25°	841	862	896	921	929	387
35°	708	738	788	829	841	442
45°	558	597	663	717	734	431
55°	410	455	529	589	610	366
65°	267	312	385	438	458	265
75°	136	175	226	266	274	144
85°	32	38	40	34	32	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1008.4	1008.4	1008.4	1008.4	1008.4
2.5°	1002.9	1004.3	1008.4	1011.3	1011.3
5°	997.5	1000.2	1007.0	1011.3	1012.6
7.5°	989.3	993.4	1002.9	1008.4	1009.9
10°	977.0	982.5	994.7	1002.9	1005.7
12.5°	961.8	970.0	985.2	996.1	998.8
15°	942.7	953.7	971.4	985.2	989.3
17.5°	920.8	934.4	956.4	972.9	978.4
20°	897.4	911.2	938.6	957.7	964.6
22.5°	870.1	887.8	919.4	941.4	946.8
25°	841.3	861.8	896.0	920.8	928.9
27.5°	809.8	834.5	871.5	901.6	908.5
30°	776.9	802.9	845.4	878.3	886.5
32.5°	742.6	772.8	818.0	854.9	866.0
35°	708.3	738.5	787.8	829.0	841.3
37.5°	668.6	704.2	759.1	801.6	816.6
40°	634.4	668.6	727.6	774.1	789.3
42.5°	596.0	633.0	694.7	745.3	763.2
45°	557.6	597.4	663.2	716.7	734.4
47.5°	522.0	561.7	630.3	686.5	704.2
50°	485.0	526.1	597.4	655.0	672.7
52.5°	445.3	490.5	564.5	622.1	642.7
55°	409.7	454.8	528.8	589.2	609.8
57.5°	372.7	419.2	496.1	553.5	572.8
60°	338.4	383.6	459.1	515.2	537.2
62.5°	301.4	348.0	421.9	476.8	497.4
65°	267.1	312.5	384.9	438.5	457.6
67.5°	232.9	278.2	346.6	397.4	419.2
70°	198.6	243.9	306.9	356.3	375.4
72.5°	168.6	208.3	268.5	313.8	331.6
75°	135.7	175.4	226.1	265.8	274.0
77.5°	105.5	141.2	183.6	201.3	204.2
80°	78.1	105.5	134.3	138.4	138.4
82.5°	52.0	72.6	83.5	84.9	83.5
85°	31.5	38.4	39.7	34.3	31.5
87.5°	10.9	10.9	6.8	4.1	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)