

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: P474669

Luminaire Tested: **24CZ2-30HE-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474669
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-SQR-UNV-L840-CD1-U
Description: 2'X4' 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: 3001.1 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

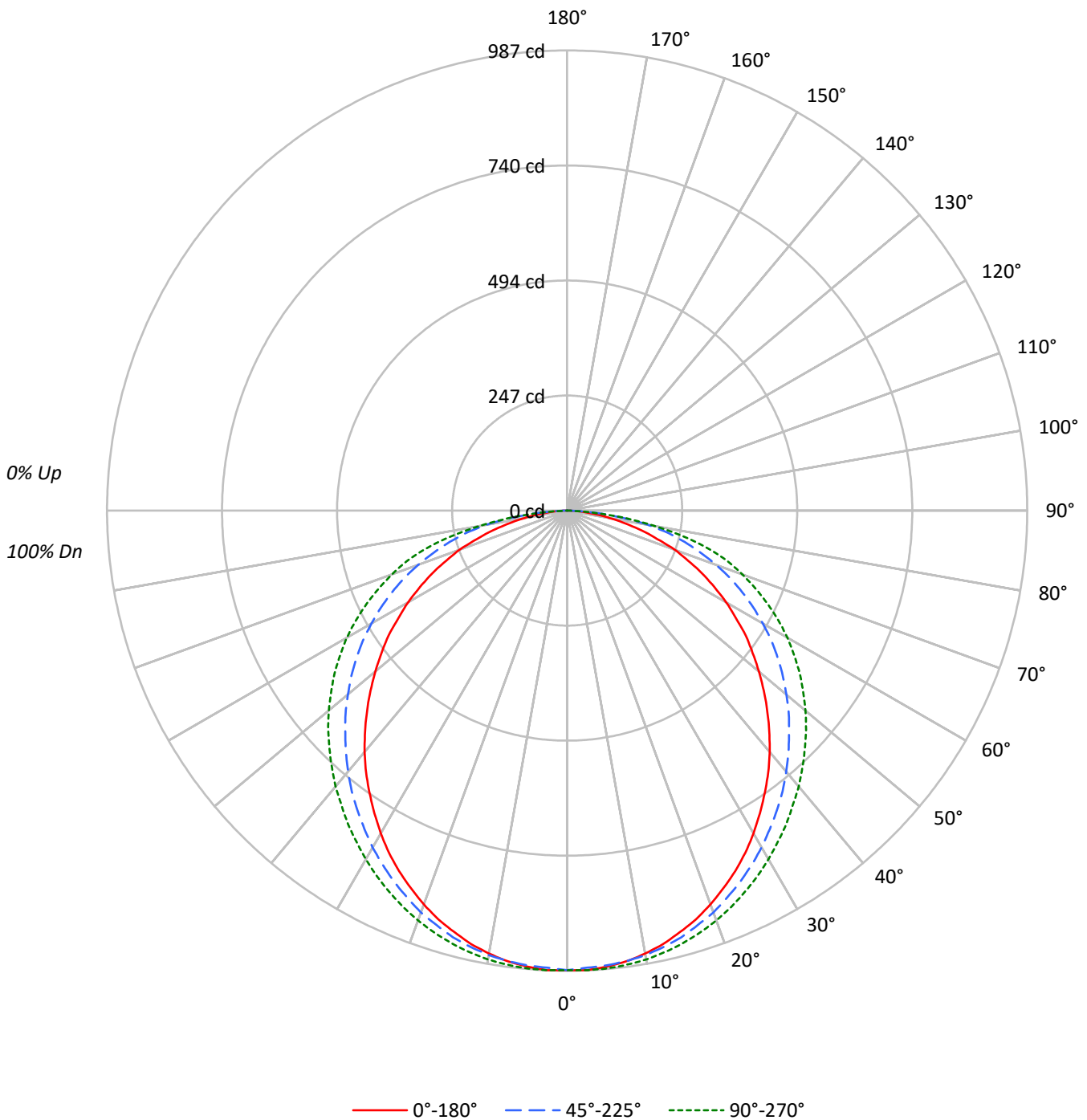
Input Watts (W): 22.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2653	2653	2653
5°	2652	2645	2663
10°	2636	2645	2671
15°	2607	2639	2676
20°	2574	2627	2679
25°	2533	2608	2679
30°	2484	2592	2683
35°	2427	2577	2693
40°	2375	2569	2715
45°	2310	2562	2744
50°	2248	2569	2794
55°	2196	2587	2857
60°	2121	2606	2936
65°	2036	2638	3025
70°	1932	2674	3146
75°	1730	2712	3250
80°	1457	2720	2949
85°	1081	2056	1939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	3.1
10°-20°	267.7	8.9
20°-30°	405.3	13.5
30°-40°	490.3	16.3
40°-50°	517.5	17.2
50°-60°	488.0	16.3
60°-70°	402.4	13.4
70°-80°	263.9	8.8
80°-90°	72.6	2.4
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°	766.4	25.5
0°-40°	1256.7	41.9
0°-60°	2262.3	75.4
0°-90°	3001.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3001.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	982	982	979	986	986	93
15°	936	941	947	958	960	264
25°	853	864	878	897	902	393
35°	739	758	784	811	820	463
45°	607	634	673	709	721	468
55°	468	501	551	593	609	417
65°	320	358	414	458	475	316
75°	166	209	261	302	313	176
85°	35	60	67	65	63	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	985.8	985.8	985.8	985.8	985.8
2.5°	986.7	985.8	981.5	987.2	986.7
5°	981.9	981.9	979.1	985.8	985.8
7.5°	975.2	975.7	974.7	982.4	982.4
10°	964.7	966.6	968.0	976.7	977.6
12.5°	952.2	955.6	958.4	969.0	970.0
15°	935.9	941.2	947.4	958.4	960.4
17.5°	919.1	925.4	932.1	946.5	948.9
20°	899.0	906.2	917.2	931.6	935.4
22.5°	876.5	886.5	898.0	915.3	920.1
25°	853.0	863.5	878.4	896.6	902.3
27.5°	827.6	840.0	856.8	877.9	884.1
30°	799.3	813.6	834.3	856.8	863.5
32.5°	769.5	786.3	809.3	834.3	841.9
35°	738.9	758.0	784.4	811.3	819.9
37.5°	708.6	727.8	759.0	787.3	795.4
40°	676.0	697.1	731.2	761.4	772.9
42.5°	641.5	666.5	702.4	736.0	747.0
45°	607.0	634.3	673.2	709.1	721.1
47.5°	572.0	602.2	644.9	681.3	695.2
50°	537.0	569.1	613.7	653.0	667.4
52.5°	501.5	535.1	583.5	625.2	638.2
55°	468.0	501.0	551.4	592.6	608.9
57.5°	429.1	466.5	519.7	561.5	577.3
60°	394.1	430.6	484.3	528.4	545.6
62.5°	356.2	393.6	450.2	494.3	511.1
65°	319.8	358.2	414.3	458.4	475.1
67.5°	280.5	320.8	378.3	421.0	437.3
70°	245.5	283.4	339.9	383.6	399.9
72.5°	202.8	246.0	300.1	343.3	361.0
75°	166.4	209.0	260.8	302.1	312.6
77.5°	128.0	170.7	222.0	248.8	256.0
80°	94.0	134.2	175.5	189.9	190.3
82.5°	63.3	98.8	122.3	129.5	128.5
85°	35.0	60.4	66.6	64.7	62.8
87.5°	14.4	20.1	16.3	11.5	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)