

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: P474682

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474682
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-SQR-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2937.2 lumens
Efficiency: N/A
Efficacy: 143.3 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

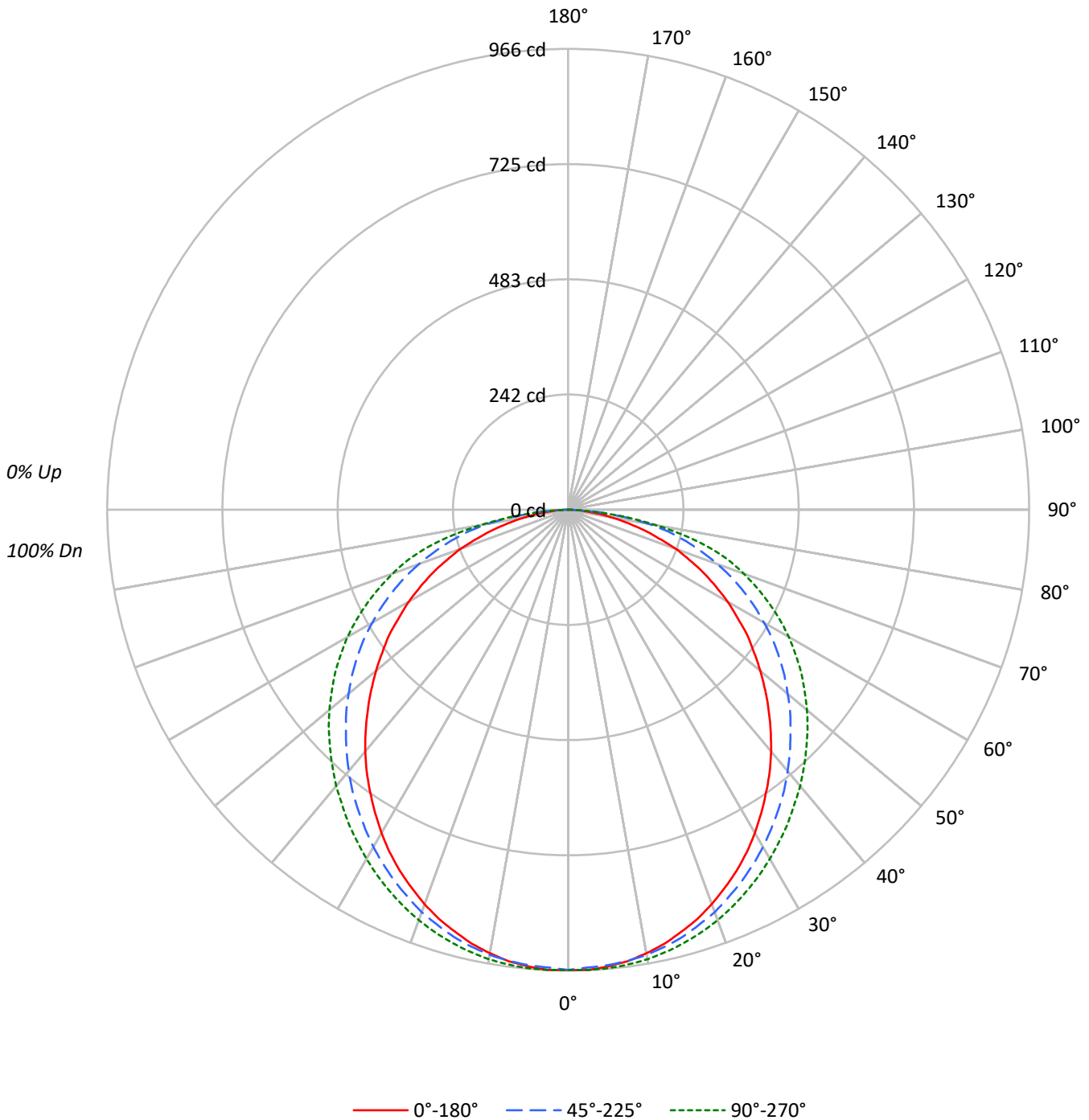
Input Watts (W): 20.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2596	2596	2596
5°	2596	2588	2606
10°	2580	2589	2614
15°	2552	2583	2618
20°	2520	2571	2622
25°	2479	2553	2622
30°	2431	2537	2626
35°	2375	2522	2636
40°	2324	2514	2657
45°	2261	2507	2686
50°	2200	2514	2735
55°	2149	2532	2796
60°	2076	2551	2874
65°	1993	2581	2961
70°	1891	2618	3079
75°	1693	2654	3182
80°	1426	2661	2887
85°	1059	2013	1899



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	3.1
10°-20°	262.0	8.9
20°-30°	396.7	13.5
30°-40°	479.8	16.3
40°-50°	506.5	17.2
50°-60°	477.6	16.3
60°-70°	393.8	13.4
70°-80°	258.3	8.8
80°-90°	71.0	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°	750.1	25.5
0°-40°	1230.0	41.9
0°-60°	2214.1	75.4
0°-90°	2937.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2937.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	961	961	958	965	965	91
15°	916	921	927	938	940	258
25°	835	845	860	878	883	384
35°	723	742	768	794	802	453
45°	594	621	659	694	706	458
55°	458	490	540	580	596	408
65°	313	350	405	449	465	309
75°	163	205	255	296	306	172
85°	34	59	65	63	62	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	964.8	964.8	964.8	964.8	964.8
2.5°	965.7	964.8	960.6	966.2	965.7
5°	961.0	961.0	958.2	964.8	964.8
7.5°	954.5	954.9	954.0	961.5	961.5
10°	944.1	946.0	947.4	955.9	956.8
12.5°	931.9	935.2	938.0	948.4	949.3
15°	916.0	921.1	927.2	938.0	939.9
17.5°	899.6	905.7	912.2	926.3	928.7
20°	879.9	886.9	897.7	911.8	915.5
22.5°	857.8	867.7	878.9	895.8	900.5
25°	834.8	845.1	859.7	877.5	883.1
27.5°	809.9	822.1	838.6	859.2	865.3
30°	782.2	796.3	816.5	838.6	845.1
32.5°	753.2	769.6	792.1	816.5	824.0
35°	723.1	741.9	767.7	794.0	802.4
37.5°	693.6	712.3	742.8	770.5	778.5
40°	661.6	682.3	715.6	745.2	756.4
42.5°	627.9	652.3	687.5	720.3	731.1
45°	594.1	620.8	658.8	694.0	705.8
47.5°	559.8	589.4	631.1	666.8	680.4
50°	525.6	557.0	600.6	639.1	653.2
52.5°	490.8	523.7	571.1	611.9	624.6
55°	458.0	490.4	539.6	580.0	596.0
57.5°	420.0	456.6	508.7	549.5	565.0
60°	385.7	421.4	473.9	517.1	534.0
62.5°	348.7	385.3	440.6	483.8	500.2
65°	313.0	350.5	405.4	448.6	465.0
67.5°	274.5	313.9	370.2	412.0	428.0
70°	240.3	277.3	332.7	375.4	391.4
72.5°	198.5	240.7	293.8	336.0	353.3
75°	162.8	204.6	255.3	295.6	306.0
77.5°	125.3	167.1	217.3	243.5	250.6
80°	92.0	131.4	171.7	185.8	186.3
82.5°	61.9	96.7	119.7	126.7	125.8
85°	34.3	59.1	65.2	63.3	61.5
87.5°	14.1	19.7	16.0	11.3	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)