

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: P295015

Luminaire Tested: **24CZ2-30-HRP-UNV-L930-CD1-U**

Issue Date: 12/2/2019

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P295015
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-HRP-UNV-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

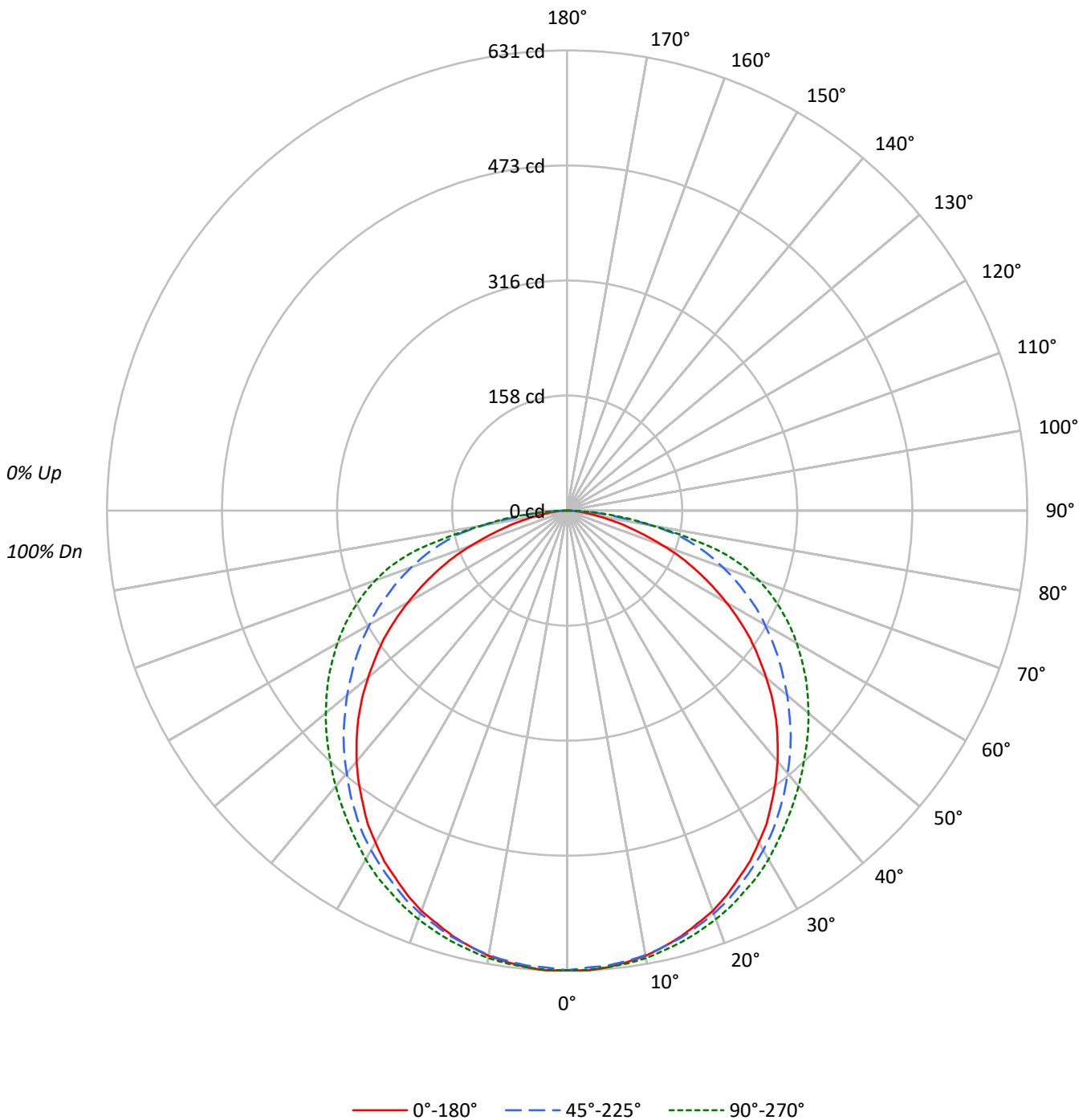
Lumens per Lamp: N/A
Luminaire Lumens: 1943.1 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24.2
Input Voltage (V): NR
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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		60	54	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	38		50	43	38		49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	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	24		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	848	848	848
5°	849	846	849
10°	847	846	851
15°	842	844	852
20°	836	842	854
25°	826	838	855
30°	816	835	858
35°	803	831	859
40°	789	826	867
45°	771	825	881
50°	746	824	904
55°	719	830	937
60°	679	843	978
65°	627	862	1033
70°	547	893	1101
75°	444	939	1137
80°	328	921	921
85°	252	678	766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.7	3.1
10°-20°	171.5	8.8
20°-30°	261.1	13.4
30°-40°	317.0	16.3
40°-50°	334.9	17.2
50°-60°	316.0	16.3
60°-70°	262.8	13.5
70°-80°	172.9	8.9
80°-90°	47.1	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°	492.3	25.3
0°-40°	809.3	41.7
0°-60°	1460.3	75.2
0°-90°	1943.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1943.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	629	629	626	629	629	60
15°	604	605	606	612	612	170
25°	556	560	564	574	576	257
35°	489	495	506	519	523	306
45°	405	413	434	455	463	312
55°	307	320	354	387	399	273
65°	197	220	271	311	325	195
75°	85	124	181	214	219	92
85°	16	36	44	49	50	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	630.4	630.4	630.4	630.4	630.4
2.5°	631.2	630.4	627.2	630.4	630.4
5°	628.8	628.8	626.4	628.8	628.8
7.5°	624.7	624.7	623.1	626.4	626.4
10°	619.9	619.9	619.0	623.1	623.1
12.5°	612.5	613.4	612.5	617.4	617.4
15°	604.4	605.2	606.0	611.7	611.7
17.5°	593.8	595.5	597.1	603.6	604.4
20°	584.1	584.9	588.1	595.5	596.3
22.5°	571.1	573.5	577.6	584.9	587.3
25°	556.4	559.7	564.5	574.3	575.9
27.5°	542.6	545.0	551.5	562.1	565.4
30°	525.5	529.6	537.7	548.3	552.3
32.5°	509.2	513.3	523.1	534.4	537.7
35°	488.9	494.6	506.0	519.0	523.1
37.5°	469.4	475.1	488.9	503.5	508.4
40°	449.0	455.5	470.2	487.3	493.8
42.5°	427.1	436.0	452.3	471.0	478.3
45°	405.1	413.2	433.6	454.7	462.9
47.5°	381.5	391.3	413.2	438.5	448.2
50°	356.3	368.5	393.7	421.4	431.9
52.5°	331.1	344.9	373.4	404.3	415.7
55°	306.7	319.7	353.9	387.2	399.4
57.5°	279.8	296.1	333.5	369.3	381.5
60°	252.2	270.1	313.2	350.6	363.6
62.5°	224.5	244.9	293.7	331.1	344.9
65°	196.9	219.6	270.9	310.7	324.6
67.5°	170.0	195.2	249.7	289.6	303.4
70°	139.1	170.8	227.0	266.0	279.8
72.5°	110.6	147.2	205.0	241.6	253.8
75°	85.4	124.5	180.6	213.9	218.8
77.5°	62.6	101.7	155.4	166.8	167.6
80°	42.3	81.3	118.8	117.1	118.8
82.5°	27.7	61.0	74.8	83.8	84.6
85°	16.3	35.8	43.9	48.8	49.6
87.5°	8.1	12.2	15.5	16.3	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)