

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: P391226

Luminaire Tested: **24CZ2-30VHE-HRP-UNV-L935-CD1-U**

Issue Date: 2/28/2020

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: P391226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-HRP-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2160.9 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

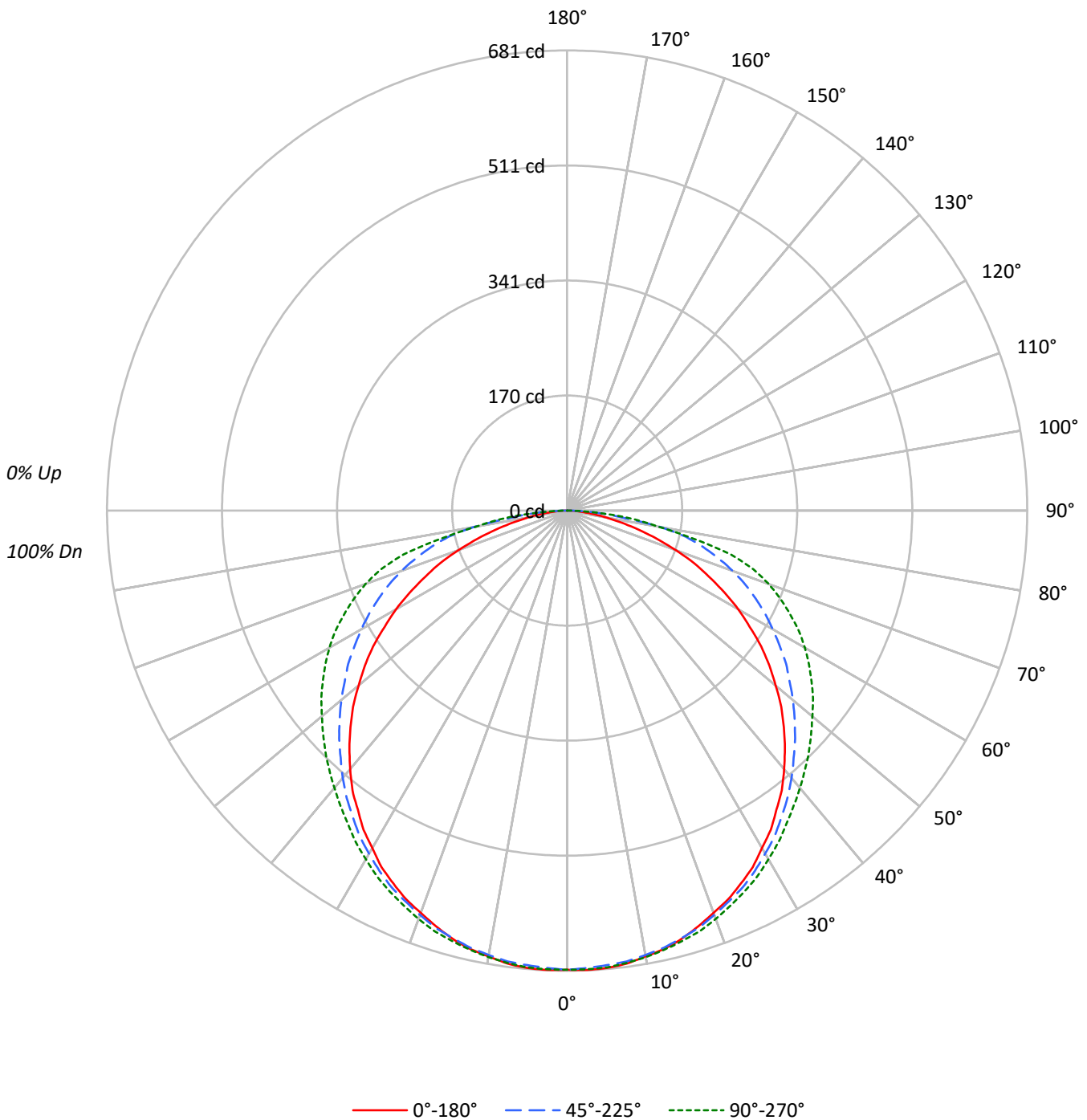
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	914	914	914
5°	918	912	916
10°	915	912	917
15°	914	912	918
20°	907	912	921
25°	904	913	923
30°	896	911	926
35°	887	908	930
40°	877	907	941
45°	863	908	963
50°	844	913	992
55°	822	928	1036
60°	787	946	1093
65°	737	979	1160
70°	670	1025	1248
75°	568	1081	1304
80°	449	1088	1055
85°	330	827	926



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	3.0
10°-20°	185.5	8.6
20°-30°	283.7	13.1
30°-40°	346.8	16.0
40°-50°	369.6	17.1
50°-60°	353.4	16.4
60°-70°	299.4	13.9
70°-80°	201.2	9.3
80°-90°	56.7	2.6
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°	533.7	24.7
0°-40°	880.5	40.7
0°-60°	1603.5	74.2
0°-90°	2160.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2160.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	680	678	675	678	678	65
15°	656	656	655	660	659	185
25°	609	611	615	621	622	281
35°	540	544	553	564	566	338
45°	453	461	477	497	506	350
55°	350	363	396	427	442	312
65°	232	255	308	348	364	230
75°	109	149	208	243	251	117
85°	21	44	54	58	60	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.5	679.5	679.5	679.5	679.5
2.5°	680.6	680.6	677.4	679.5	679.5
5°	679.5	678.5	675.3	678.5	678.5
7.5°	676.3	675.3	673.1	676.3	675.3
10°	669.9	669.9	667.8	671.0	671.0
12.5°	664.5	663.5	662.4	666.7	665.6
15°	656.0	656.0	654.9	660.2	659.2
17.5°	645.2	646.3	647.4	651.7	652.7
20°	633.5	635.6	636.7	643.1	643.1
22.5°	622.7	623.8	625.9	632.4	632.4
25°	608.8	610.9	615.2	620.6	621.7
27.5°	594.9	595.9	601.3	608.8	609.9
30°	576.6	579.9	586.3	594.9	595.9
32.5°	560.6	563.8	571.3	579.9	582.0
35°	540.2	544.5	553.1	563.8	565.9
37.5°	522.0	525.2	535.9	547.7	550.9
40°	499.5	505.9	516.6	530.6	535.9
42.5°	477.0	483.4	496.3	514.5	520.9
45°	453.4	460.9	477.0	497.3	505.9
47.5°	429.8	438.4	456.6	480.2	489.8
50°	403.0	413.7	436.2	463.0	473.7
52.5°	377.3	390.1	414.8	444.8	458.7
55°	350.5	363.4	395.5	426.6	441.6
57.5°	320.5	337.6	373.0	408.4	424.4
60°	292.6	308.7	351.6	390.1	406.2
62.5°	262.6	284.0	330.1	370.9	386.9
65°	231.5	255.1	307.6	348.3	364.4
67.5°	203.6	229.4	285.1	325.8	341.9
70°	170.4	202.6	260.5	301.2	317.3
72.5°	139.3	174.7	234.7	274.4	289.4
75°	109.3	149.0	207.9	243.3	250.8
77.5°	81.5	123.3	180.1	195.1	189.7
80°	57.9	98.6	140.4	132.9	136.1
82.5°	37.5	75.0	86.8	98.6	101.8
85°	21.4	43.9	53.6	57.9	60.0
87.5°	9.6	16.1	21.4	21.4	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)