

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: P391341

Luminaire Tested: **24CZ2-40VHE-RDP-UNV-L930-CD1-SDWPD1-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: P391341
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: 24CZ2-40VHE-RDP-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2188.4 lumens
Efficiency: N/A
Efficacy: 83.5 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

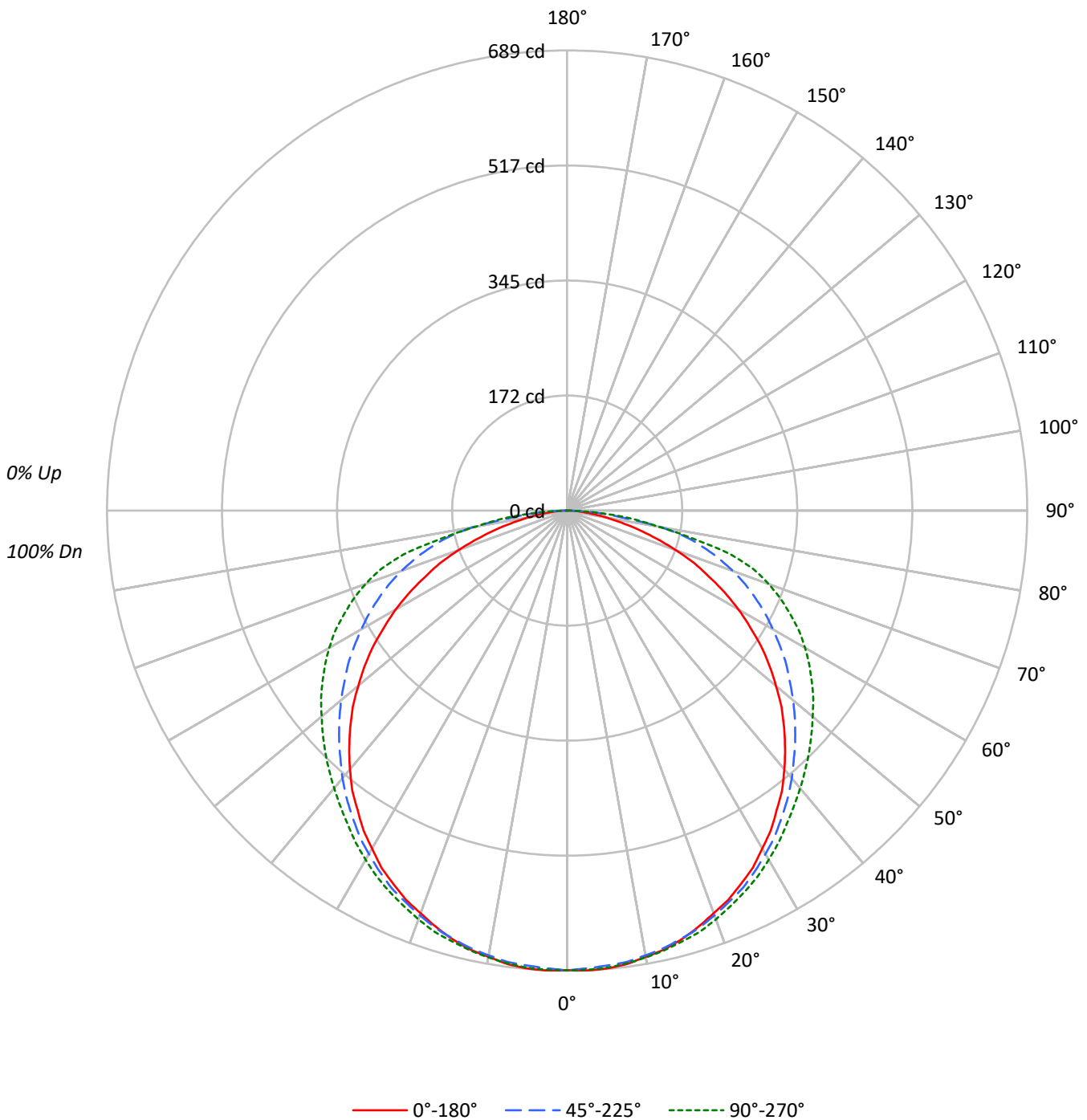
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	67	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°	926	926	926
5°	930	924	928
10°	927	924	928
15°	925	924	930
20°	919	923	933
25°	915	925	935
30°	907	923	938
35°	899	920	941
40°	888	919	953
45°	874	919	975
50°	854	925	1004
55°	833	939	1049
60°	797	958	1107
65°	747	992	1175
70°	679	1038	1264
75°	575	1095	1320
80°	454	1102	1068
85°	335	838	939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.3	3.0
10°-20°	187.9	8.6
20°-30°	287.3	13.1
30°-40°	351.2	16.0
40°-50°	374.3	17.1
50°-60°	357.9	16.4
60°-70°	303.2	13.9
70°-80°	203.8	9.3
80°-90°	57.5	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°	540.5	24.7
0°-40°	891.7	40.7
0°-60°	1623.9	74.2
0°-90°	2188.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2188.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	688	687	684	687	687	65
15°	664	664	663	669	668	187
25°	616	619	623	628	630	284
35°	547	551	560	571	573	343
45°	459	467	483	504	512	354
55°	355	368	400	432	447	316
65°	234	258	312	353	369	233
75°	111	151	211	246	254	119
85°	22	44	54	59	61	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	688.2	688.2	688.2	688.2	688.2
2.5°	689.3	689.3	686.0	688.2	688.2
5°	688.2	687.1	683.8	687.1	687.1
7.5°	684.9	683.8	681.7	684.9	683.8
10°	678.4	678.4	676.2	679.5	679.5
12.5°	673.0	671.9	670.8	675.2	674.1
15°	664.3	664.3	663.2	668.7	667.6
17.5°	653.5	654.5	655.6	660.0	661.1
20°	641.5	643.7	644.8	651.3	651.3
22.5°	630.7	631.7	633.9	640.4	640.4
25°	616.5	618.7	623.1	628.5	629.6
27.5°	602.4	603.5	608.9	616.5	617.6
30°	584.0	587.2	593.8	602.4	603.5
32.5°	567.7	571.0	578.6	587.2	589.4
35°	547.1	551.4	560.1	571.0	573.1
37.5°	528.6	531.9	542.7	554.7	557.9
40°	505.8	512.3	523.2	537.3	542.7
42.5°	483.0	489.5	502.6	521.0	527.5
45°	459.2	466.8	483.0	503.7	512.3
47.5°	435.3	444.0	462.4	486.3	496.1
50°	408.1	419.0	441.8	468.9	479.8
52.5°	382.1	395.1	420.1	450.5	464.6
55°	354.9	368.0	400.5	432.0	447.2
57.5°	324.6	341.9	377.7	413.6	429.8
60°	296.3	312.6	356.0	395.1	411.4
62.5°	265.9	287.7	334.3	375.6	391.9
65°	234.5	258.3	311.5	352.8	369.1
67.5°	206.2	232.3	288.7	330.0	346.3
70°	172.6	205.2	263.8	305.0	321.3
72.5°	141.1	176.9	237.7	277.9	293.1
75°	110.7	150.9	210.6	246.4	254.0
77.5°	82.5	124.8	182.4	197.6	192.1
80°	58.6	99.9	142.2	134.6	137.9
82.5°	38.0	76.0	87.9	99.9	103.1
85°	21.7	44.5	54.3	58.6	60.8
87.5°	9.8	16.3	21.7	21.7	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)