

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: P391347

Luminaire Tested: **24CZ2-40VHE-RDP-UNV-L940-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: P391347
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-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2265.7 lumens
Efficiency: N/A
Efficacy: 86.5 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

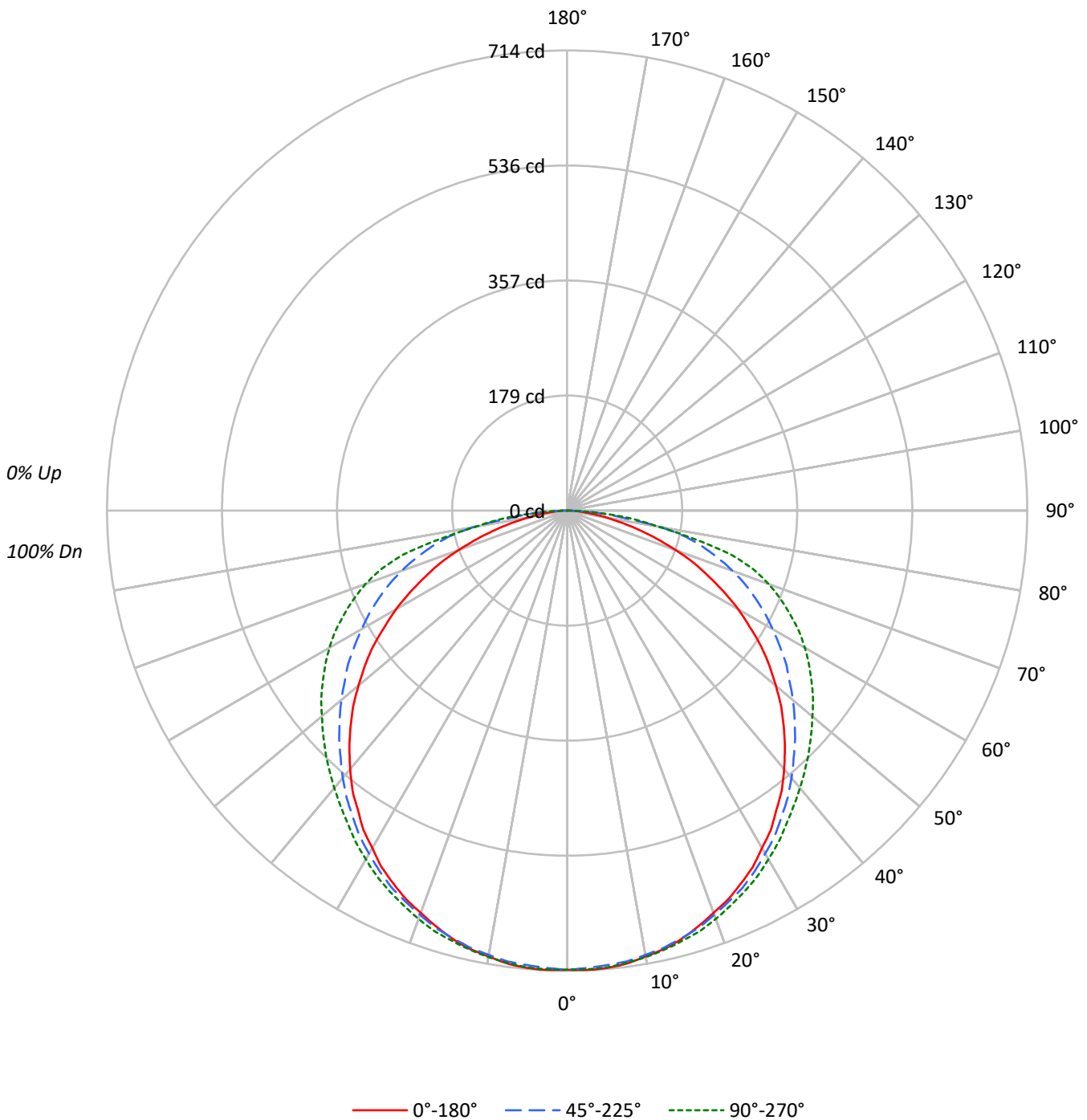
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	959	959	959
5°	962	956	961
10°	960	957	961
15°	958	957	963
20°	951	956	965
25°	948	958	968
30°	939	955	971
35°	930	953	975
40°	920	951	987
45°	905	952	1009
50°	885	957	1040
55°	862	973	1086
60°	826	992	1146
65°	773	1027	1216
70°	703	1074	1308
75°	596	1133	1367
80°	470	1141	1106
85°	347	868	971



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.6	3.0
10°-20°	194.5	8.6
20°-30°	297.5	13.1
30°-40°	363.6	16.0
40°-50°	387.5	17.1
50°-60°	370.6	16.4
60°-70°	313.9	13.9
70°-80°	211.0	9.3
80°-90°	59.5	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°	559.6	24.7
0°-40°	923.2	40.7
0°-60°	1681.3	74.2
0°-90°	2265.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2265.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	712	712	712	712	712	
5°	712	711	708	711	711	68
15°	688	688	687	692	691	194
25°	638	641	645	651	652	294
35°	566	571	580	591	593	355
45°	475	483	500	521	530	367
55°	368	381	415	447	463	327
65°	243	268	322	365	382	241
75°	115	156	218	255	263	123
85°	22	46	56	61	63	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	712.5	712.5	712.5	712.5	712.5
2.5°	713.6	713.6	710.3	712.5	712.5
5°	712.5	711.4	708.0	711.4	711.4
7.5°	709.1	708.0	705.8	709.1	708.0
10°	702.4	702.4	700.1	703.5	703.5
12.5°	696.8	695.6	694.5	699.0	697.9
15°	687.8	687.8	686.7	692.3	691.1
17.5°	676.5	677.7	678.8	683.3	684.4
20°	664.2	666.4	667.5	674.3	674.3
22.5°	652.9	654.1	656.3	663.1	663.1
25°	638.3	640.6	645.1	650.7	651.8
27.5°	623.7	624.8	630.5	638.3	639.5
30°	604.6	608.0	614.7	623.7	624.8
32.5°	587.8	591.1	599.0	608.0	610.2
35°	566.4	570.9	579.9	591.1	593.4
37.5°	547.3	550.7	561.9	574.3	577.6
40°	523.7	530.4	541.7	556.3	561.9
42.5°	500.1	506.8	520.3	539.4	546.2
45°	475.4	483.2	500.1	521.4	530.4
47.5°	450.6	459.6	478.7	503.5	513.6
50°	422.6	433.8	457.4	485.5	496.7
52.5°	395.6	409.1	434.9	466.4	481.0
55°	367.5	381.0	414.7	447.3	463.0
57.5°	336.0	354.0	391.1	428.2	445.0
60°	306.8	323.7	368.6	409.1	425.9
62.5°	275.3	297.8	346.1	388.8	405.7
65°	242.7	267.5	322.5	365.2	382.1
67.5°	213.5	240.5	298.9	341.6	358.5
70°	178.7	212.4	273.1	315.8	332.6
72.5°	146.1	183.2	246.1	287.7	303.4
75°	114.6	156.2	218.0	255.1	263.0
77.5°	85.4	129.2	188.8	204.5	198.9
80°	60.7	103.4	147.2	139.4	142.7
82.5°	39.3	78.7	91.0	103.4	106.8
85°	22.5	46.1	56.2	60.7	62.9
87.5°	10.1	16.9	22.5	22.5	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)