

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: P387440

Luminaire Tested: **14CZ2-29-SQR-UNV-L940-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: P387440
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)
Test Lab: INNOVATIONS CENTER(G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-29-SQR-UNV-L940-CD1-U
Description: 1x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2361.9 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

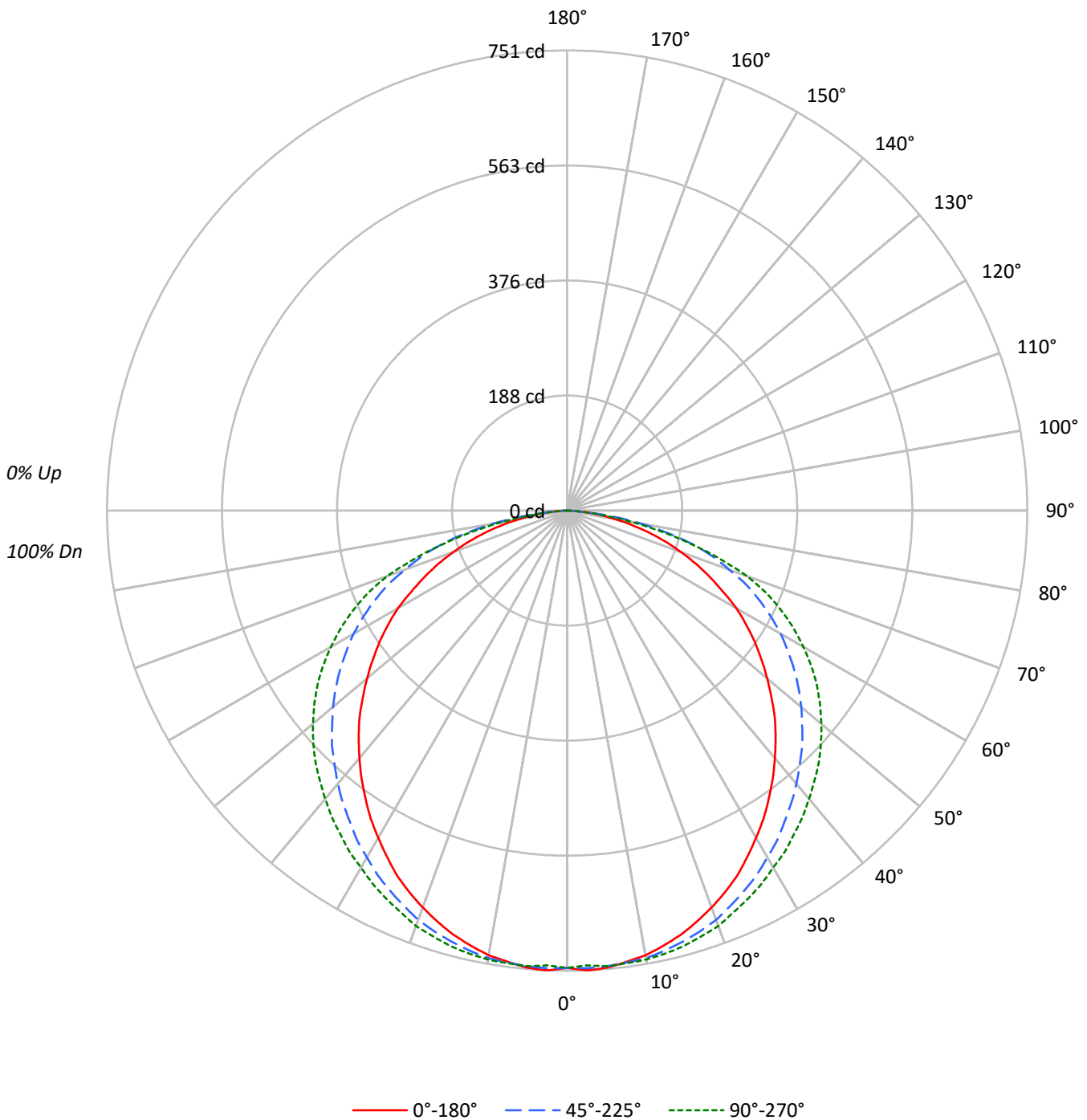
Input Watts (W): 24.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83					83			
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68					68			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48					48			
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41					41			
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35					35			
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28					28			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25					25			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2009	2009	2009
5°	2023	2016	2016
10°	2014	2026	2033
15°	1996	2030	2050
20°	1974	2035	2066
25°	1951	2032	2075
30°	1916	2031	2090
35°	1885	2033	2120
40°	1852	2045	2158
45°	1826	2066	2211
50°	1784	2088	2267
55°	1754	2122	2335
60°	1717	2166	2396
65°	1637	2206	2456
70°	1555	2210	2454
75°	1423	2203	2166
80°	1218	1881	1678
85°	957	1065	624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.9	3.0
10°-20°	204.9	8.7
20°-30°	313.4	13.3
30°-40°	384.1	16.3
40°-50°	413.1	17.5
50°-60°	397.0	16.8
60°-70°	330.5	14.0
70°-80°	202.9	8.6
80°-90°	45.2	1.9
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°	589.2	24.9
0°-40°	973.3	41.2
0°-60°	1783.3	75.5
0°-90°	2361.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2361.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	746	746	746	746	746	
5°	749	742	746	746	746	71
15°	717	714	728	733	736	202
25°	657	663	684	693	699	302
35°	574	588	619	636	645	359
45°	480	501	543	568	581	369
55°	374	406	452	483	498	334
65°	257	296	346	375	386	255
75°	137	179	212	211	208	145
85°	31	46	34	24	20	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	746.4	746.4	746.4	746.4	746.4
2.5°	751.1	744.0	747.6	746.4	742.8
5°	748.8	741.6	746.4	746.4	746.4
7.5°	742.8	736.9	744.0	745.2	745.2
10°	736.9	732.1	741.6	742.8	744.0
12.5°	727.3	723.8	735.7	738.0	740.4
15°	716.6	714.2	728.5	733.3	735.7
17.5°	703.5	704.7	720.2	726.1	728.5
20°	689.2	692.8	710.7	716.6	721.4
22.5°	673.8	678.5	697.6	704.7	709.5
25°	657.1	663.1	684.5	692.8	698.8
27.5°	636.9	646.4	670.2	680.9	686.9
30°	616.6	627.3	653.5	666.6	672.6
32.5°	596.4	608.3	638.1	651.1	660.7
35°	573.8	588.1	619.0	635.7	645.2
37.5°	551.2	567.8	601.2	620.2	630.9
40°	527.3	545.2	582.1	603.5	614.2
42.5°	503.5	523.8	561.9	585.7	597.6
45°	479.7	501.2	542.8	567.8	580.9
47.5°	452.4	478.5	520.2	548.8	561.9
50°	426.2	454.7	498.8	528.5	541.6
52.5°	400.0	429.7	476.2	507.1	520.2
55°	373.8	405.9	452.4	483.3	497.6
57.5°	346.4	379.7	427.4	459.5	472.6
60°	319.0	353.5	402.4	432.1	445.2
62.5°	286.9	327.4	375.0	404.7	416.6
65°	257.1	296.4	346.4	375.0	385.7
67.5°	227.4	267.8	316.6	342.8	352.4
70°	197.6	238.1	280.9	305.9	311.9
72.5°	167.8	208.3	248.8	263.1	260.7
75°	136.9	178.6	211.9	210.7	208.3
77.5°	107.1	147.6	167.8	159.5	155.9
80°	78.6	117.8	121.4	113.1	108.3
82.5°	53.6	84.5	76.2	66.7	61.9
85°	31.0	46.4	34.5	23.8	20.2
87.5°	13.1	11.9	3.6	3.6	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)