

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: P387587

Luminaire Tested: **14CZ2-60HE-SQR-UNV-L950-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: P387587
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: 14CZ2-60HE-SQR-UNV-L950-CD1-U
Description: 1x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5243.0 lumens
Efficiency: N/A
Efficacy: 108.6 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

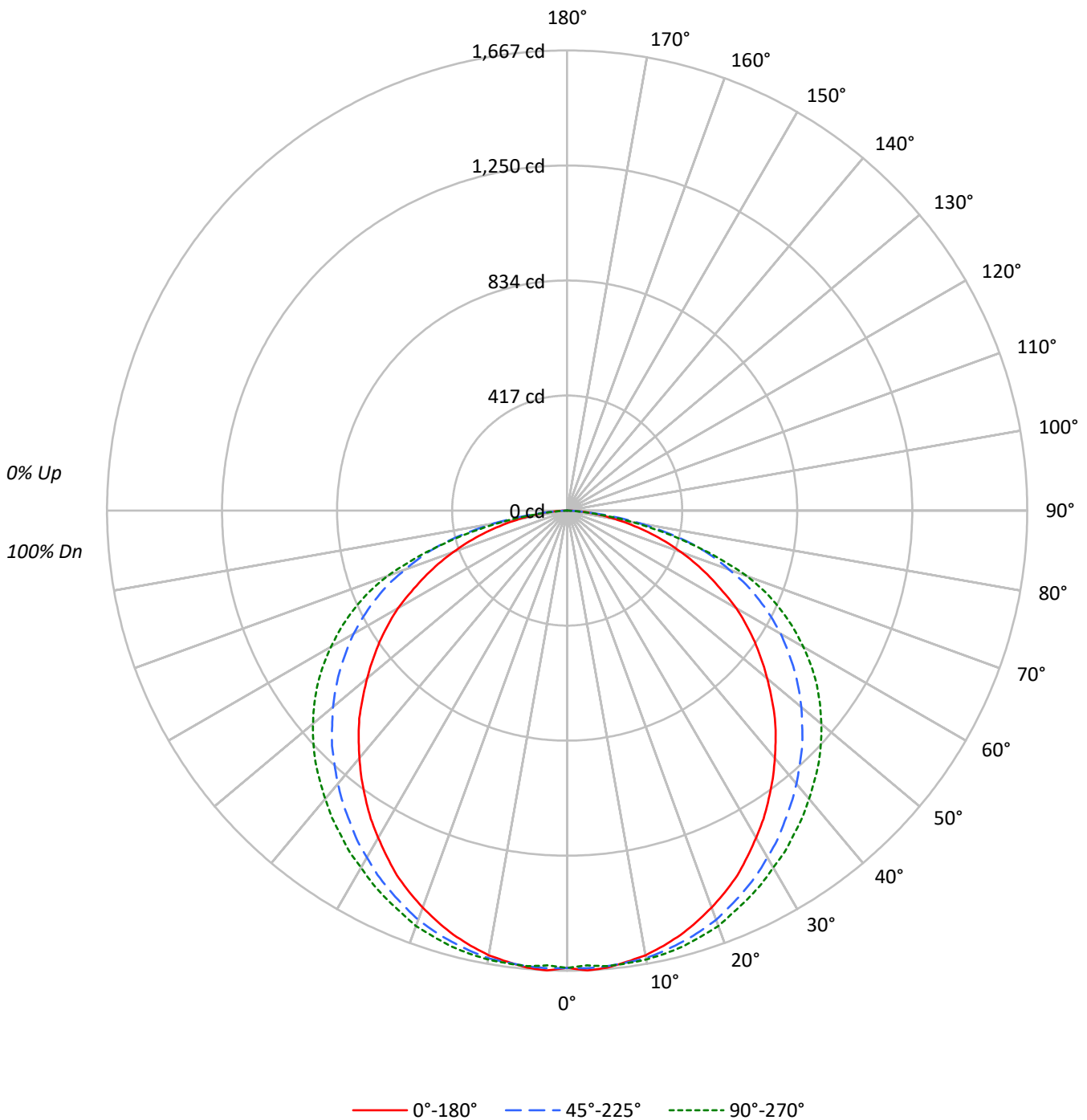
Input Watts (W): 48.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4458	4458	4458
5°	4490	4475	4475
10°	4470	4499	4513
15°	4432	4505	4550
20°	4381	4518	4586
25°	4331	4511	4605
30°	4253	4508	4639
35°	4184	4514	4705
40°	4112	4539	4790
45°	4053	4586	4907
50°	3960	4635	5033
55°	3893	4711	5182
60°	3812	4807	5319
65°	3635	4897	5452
70°	3452	4906	5447
75°	3160	4891	4808
80°	2703	4176	3727
85°	2121	2365	1386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.5	3.0
10°-20°	454.8	8.7
20°-30°	695.6	13.3
30°-40°	852.6	16.3
40°-50°	917.0	17.5
50°-60°	881.2	16.8
60°-70°	733.7	14.0
70°-80°	450.3	8.6
80°-90°	100.3	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°	1307.9	24.9
0°-40°	2160.5	41.2
0°-60°	3958.7	75.5
0°-90°	5243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5243.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1657	1657	1657	1657	1657	
5°	1662	1646	1657	1657	1657	158
15°	1591	1586	1617	1628	1633	448
25°	1459	1472	1519	1538	1551	671
35°	1274	1305	1374	1411	1432	797
45°	1065	1112	1205	1260	1290	820
55°	830	901	1004	1073	1105	741
65°	571	658	769	832	856	566
75°	304	396	470	468	462	322
85°	69	103	77	53	45	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1656.8	1656.8	1656.8	1656.8	1656.8
2.5°	1667.4	1651.5	1659.5	1656.8	1648.9
5°	1662.1	1646.3	1656.8	1656.8	1656.8
7.5°	1648.9	1635.7	1651.5	1654.2	1654.2
10°	1635.7	1625.1	1646.3	1648.9	1651.5
12.5°	1614.6	1606.6	1633.1	1638.3	1643.6
15°	1590.8	1585.5	1617.2	1627.8	1633.1
17.5°	1561.7	1564.3	1598.7	1611.9	1617.2
20°	1530.0	1537.9	1577.6	1590.8	1601.3
22.5°	1495.6	1506.2	1548.5	1564.3	1574.9
25°	1458.6	1471.9	1519.4	1537.9	1551.1
27.5°	1413.7	1434.9	1487.7	1511.5	1524.7
30°	1368.8	1392.6	1450.7	1479.8	1493.0
32.5°	1323.9	1350.3	1416.4	1445.4	1466.6
35°	1273.7	1305.4	1374.1	1411.1	1432.2
37.5°	1223.5	1260.5	1334.5	1376.7	1400.5
40°	1170.6	1210.3	1292.2	1339.7	1363.5
42.5°	1117.8	1162.7	1247.2	1300.1	1326.5
45°	1064.9	1112.5	1205.0	1260.5	1289.5
47.5°	1004.1	1062.3	1154.8	1218.2	1247.2
50°	946.0	1009.4	1107.2	1173.3	1202.3
52.5°	887.9	953.9	1057.0	1125.7	1154.8
55°	829.7	901.1	1004.1	1072.8	1104.6
57.5°	769.0	843.0	948.6	1020.0	1049.1
60°	708.2	784.8	893.2	959.2	988.3
62.5°	636.8	726.7	832.4	898.4	924.9
65°	570.8	658.0	769.0	832.4	856.2
67.5°	504.7	594.6	702.9	761.0	782.2
70°	438.7	528.5	623.6	679.1	692.3
72.5°	372.6	462.4	552.3	584.0	578.7
75°	303.9	396.4	470.4	467.7	462.4
77.5°	237.8	327.7	372.6	354.1	346.2
80°	174.4	261.6	269.5	251.0	240.5
82.5°	118.9	187.6	169.1	148.0	137.4
85°	68.7	103.1	76.6	52.8	44.9
87.5°	29.1	26.4	7.9	7.9	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)