

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: P387678

Luminaire Tested: **22CZ2-20HE-SQR-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: P387678
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-SQR-UNV-L940-CD1-SDWPD1-U
Description: 2x2 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: 1636.1 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

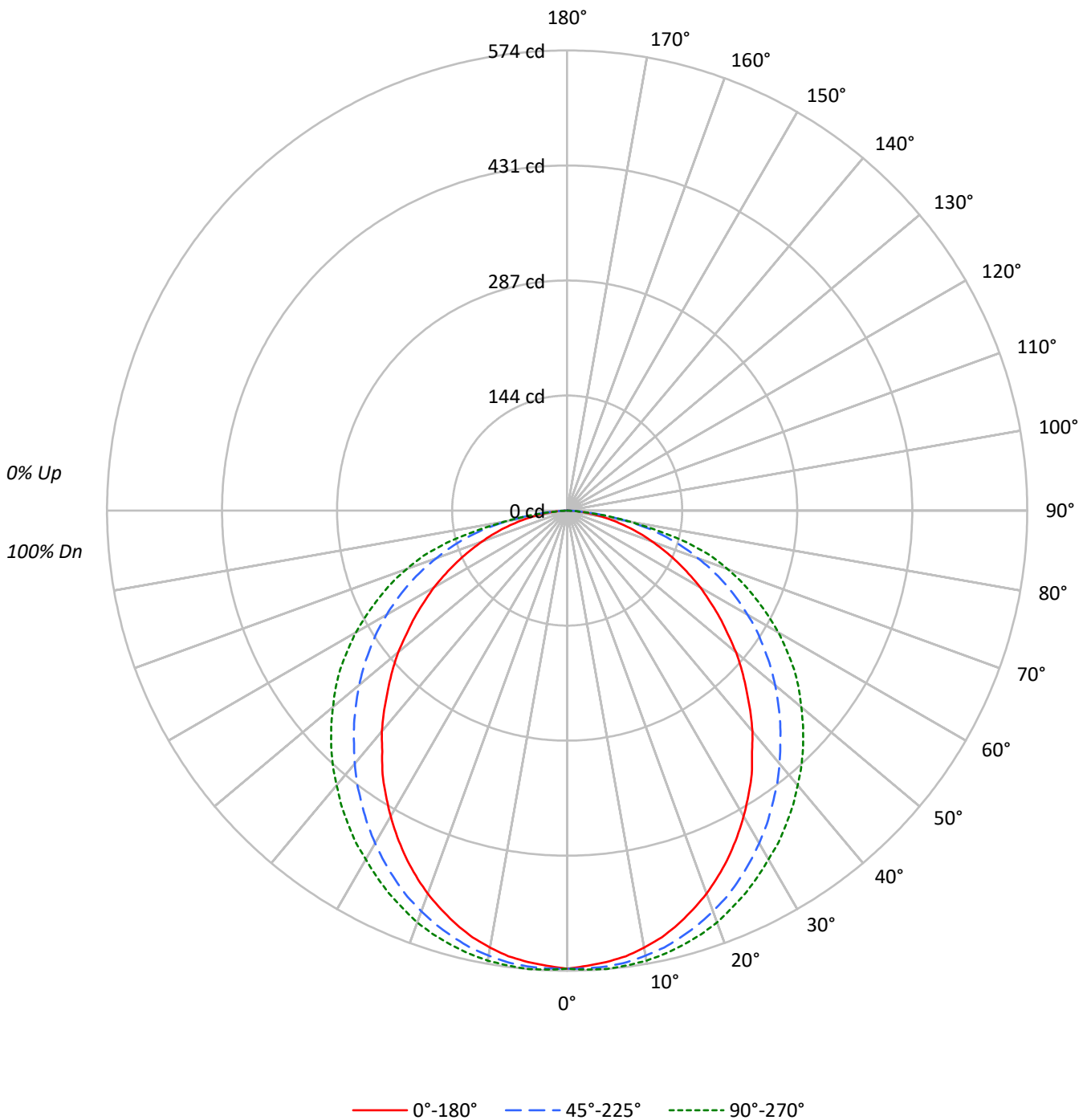
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1538	1538	1538
5°	1527	1542	1550
10°	1513	1541	1558
15°	1489	1534	1562
20°	1456	1523	1566
25°	1416	1508	1563
30°	1368	1489	1561
35°	1319	1467	1566
40°	1263	1448	1571
45°	1203	1430	1584
50°	1151	1418	1596
55°	1089	1406	1621
60°	1032	1400	1638
65°	964	1389	1652
70°	886	1368	1674
75°	800	1332	1615
80°	687	1179	1215
85°	553	695	553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.2	3.3
10°-20°	154.9	9.5
20°-30°	232.7	14.2
30°-40°	277.5	17.0
40°-50°	286.9	17.5
50°-60°	263.8	16.1
60°-70°	210.0	12.8
70°-80°	128.3	7.8
80°-90°	27.9	1.7
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°	441.8	27.0
0°-40°	719.3	44.0
0°-60°	1269.9	77.6
0°-90°	1636.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1636.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	572	572	572	572	572	
5°	565	567	571	573	574	54
15°	534	540	551	558	561	150
25°	477	488	508	522	526	219
35°	402	419	446	470	477	250
45°	316	339	376	406	416	244
55°	232	258	300	334	346	208
65°	151	177	218	248	259	150
75°	77	99	128	151	155	82
85°	18	22	22	19	18	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	571.5	571.5	571.5	571.5	571.5
2.5°	568.4	569.2	571.5	573.1	573.1
5°	565.3	566.9	570.8	573.1	573.9
7.5°	560.7	563.0	568.4	571.5	572.3
10°	553.7	556.8	563.8	568.4	570.0
12.5°	545.1	549.8	558.3	564.5	566.1
15°	534.3	540.5	550.6	558.3	560.7
17.5°	521.8	529.6	542.0	551.3	554.4
20°	508.6	516.4	531.9	542.8	546.7
22.5°	493.1	503.2	521.1	533.5	536.6
25°	476.8	488.4	507.9	521.8	526.5
27.5°	458.9	472.9	493.9	511.0	514.8
30°	440.3	455.0	479.1	497.8	502.4
32.5°	420.9	438.0	463.6	484.6	490.8
35°	401.5	418.6	446.5	469.8	476.8
37.5°	378.9	399.1	430.2	454.3	462.8
40°	359.5	378.9	412.3	438.7	447.3
42.5°	337.8	358.8	393.7	422.4	432.5
45°	316.0	338.6	375.8	406.1	416.2
47.5°	295.9	318.4	357.2	389.0	399.1
50°	274.9	298.2	338.6	371.2	381.3
52.5°	252.4	278.0	319.9	352.5	364.2
55°	232.2	257.8	299.7	333.9	345.6
57.5°	211.2	237.6	281.1	313.7	324.6
60°	191.8	217.4	260.1	292.0	304.4
62.5°	170.8	197.2	239.2	270.2	281.9
65°	151.4	177.0	218.2	248.5	259.4
67.5°	132.0	157.6	196.5	225.2	237.6
70°	112.6	138.2	173.9	201.9	212.8
72.5°	95.5	118.0	152.2	177.8	187.9
75°	76.9	99.4	128.1	150.6	155.3
77.5°	59.8	80.0	104.1	114.2	115.7
80°	44.3	59.8	76.1	78.4	78.4
82.5°	29.5	41.2	47.4	48.1	47.4
85°	17.9	21.7	22.5	19.4	17.9
87.5°	6.2	6.2	3.9	2.3	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)