

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: P387676

Luminaire Tested: **22CZ2-20HE-SQR-UNV-L935-CD1-SWPD1-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: P387676
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1639.1 lumens
Efficiency: N/A
Efficacy: 102.4 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

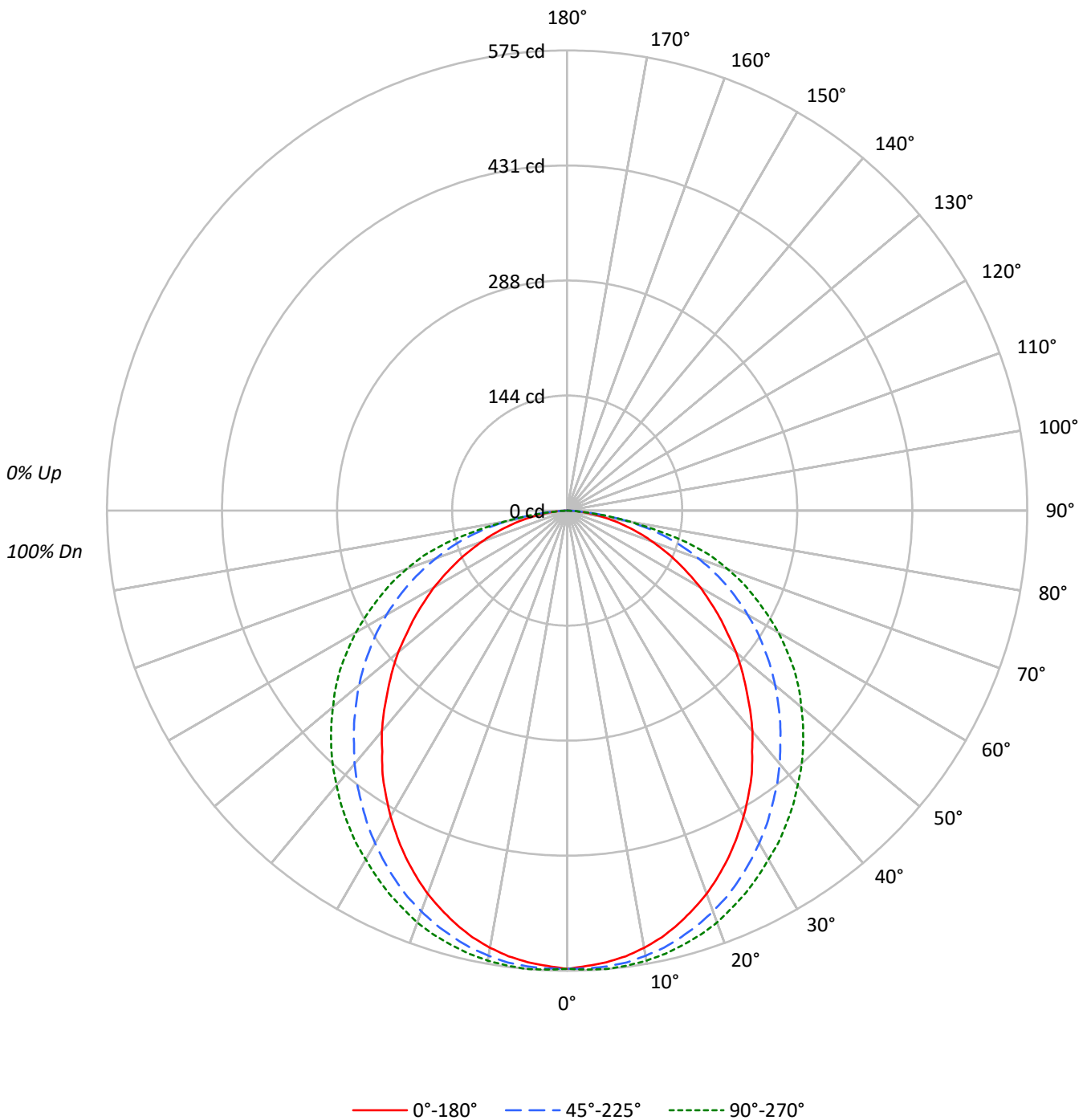
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1541	1541	1541
5°	1530	1545	1553
10°	1516	1543	1560
15°	1491	1537	1565
20°	1459	1526	1568
25°	1418	1511	1566
30°	1371	1491	1564
35°	1321	1469	1569
40°	1265	1451	1574
45°	1205	1433	1587
50°	1153	1420	1599
55°	1091	1409	1624
60°	1034	1403	1641
65°	966	1392	1654
70°	887	1371	1677
75°	801	1335	1618
80°	687	1181	1218
85°	553	698	553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	3.3
10°-20°	155.2	9.5
20°-30°	233.1	14.2
30°-40°	278.0	17.0
40°-50°	287.4	17.5
50°-60°	264.3	16.1
60°-70°	210.4	12.8
70°-80°	128.5	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°	442.6	27.0
0°-40°	720.6	44.0
0°-60°	1272.3	77.6
0°-90°	1639.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1639.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	573	573	573	573	573	
5°	566	568	572	574	575	54
15°	535	542	552	559	562	151
25°	478	489	509	523	528	220
35°	402	419	447	471	478	251
45°	317	339	376	407	417	245
55°	233	258	300	334	346	208
65°	152	177	219	249	260	150
75°	77	100	128	151	156	82
85°	18	22	23	19	18	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	572.6	572.6	572.6	572.6	572.6
2.5°	569.5	570.2	572.6	574.1	574.1
5°	566.4	567.9	571.8	574.1	574.9
7.5°	561.7	564.0	569.5	572.6	573.4
10°	554.7	557.8	564.8	569.5	571.0
12.5°	546.1	550.8	559.4	565.6	567.1
15°	535.2	541.5	551.6	559.4	561.7
17.5°	522.8	530.6	543.0	552.4	555.5
20°	509.6	517.3	532.9	543.8	547.7
22.5°	494.0	504.1	522.0	534.5	537.6
25°	477.7	489.3	508.8	522.8	527.5
27.5°	459.8	473.8	494.8	511.9	515.8
30°	441.1	455.9	480.0	498.7	503.3
32.5°	421.7	438.8	464.4	485.4	491.7
35°	402.2	419.3	447.3	470.7	477.7
37.5°	379.6	399.9	431.0	455.1	463.7
40°	360.2	379.6	413.1	439.5	448.1
42.5°	338.4	359.4	394.4	423.2	433.3
45°	316.6	339.2	376.5	406.9	417.0
47.5°	296.4	319.0	357.9	389.8	399.9
50°	275.4	298.7	339.2	371.9	382.0
52.5°	252.8	278.5	320.5	353.2	364.9
55°	232.6	258.3	300.3	334.5	346.2
57.5°	211.6	238.1	281.6	314.3	325.2
60°	192.2	217.8	260.6	292.5	305.0
62.5°	171.2	197.6	239.6	270.7	282.4
65°	151.7	177.4	218.6	248.9	259.8
67.5°	132.3	157.9	196.8	225.6	238.1
70°	112.8	138.5	174.3	202.3	213.2
72.5°	95.7	118.2	152.5	178.2	188.3
75°	77.0	99.6	128.4	150.9	155.6
77.5°	59.9	80.1	104.2	114.4	115.9
80°	44.3	59.9	76.2	78.6	78.6
82.5°	29.6	41.2	47.5	48.2	47.5
85°	17.9	21.8	22.6	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)