

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: P387702

Luminaire Tested: **22CZ2-20VHE-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: P387702
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: 22CZ2-20VHE-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: 1607.3 lumens
Efficiency: N/A
Efficacy: 113.2 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

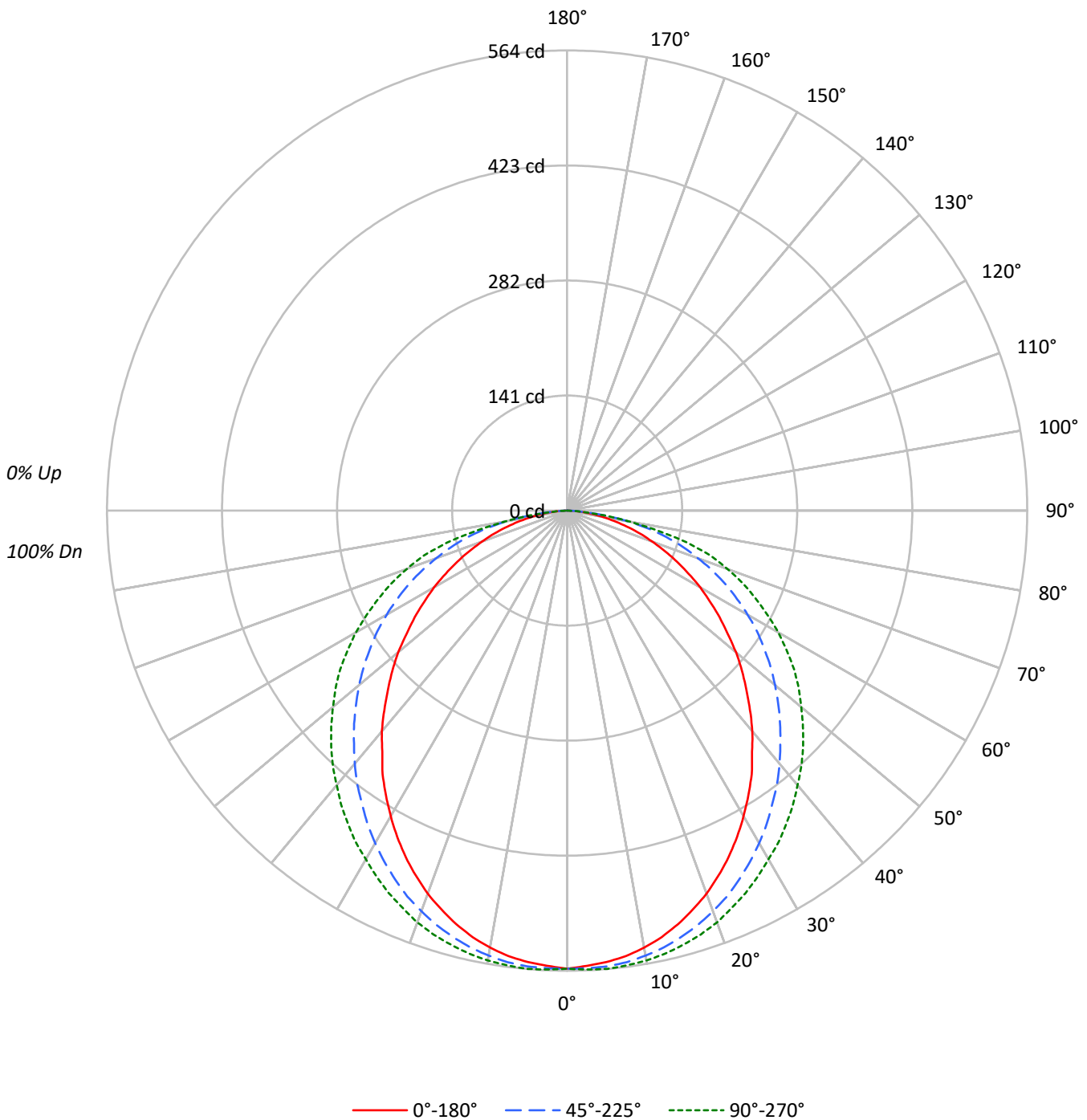
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1511	1511	1511
5°	1500	1515	1523
10°	1486	1513	1530
15°	1462	1507	1534
20°	1431	1497	1538
25°	1391	1481	1536
30°	1344	1463	1534
35°	1296	1441	1539
40°	1241	1423	1544
45°	1182	1405	1556
50°	1131	1392	1568
55°	1070	1382	1593
60°	1014	1376	1609
65°	947	1365	1622
70°	870	1345	1644
75°	785	1309	1587
80°	674	1159	1193
85°	540	682	540



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.2	3.3
10°-20°	152.2	9.5
20°-30°	228.6	14.2
30°-40°	272.6	17.0
40°-50°	281.9	17.5
50°-60°	259.1	16.1
60°-70°	206.3	12.8
70°-80°	126.0	7.8
80°-90°	27.4	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°	434.0	27.0
0°-40°	706.6	44.0
0°-60°	1247.6	77.6
0°-90°	1607.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1607.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	562	562	562	562	562	
5°	555	557	561	563	564	53
15°	525	531	541	548	551	148
25°	468	480	499	513	517	215
35°	394	411	439	462	468	246
45°	310	333	369	399	409	240
55°	228	253	294	328	340	204
65°	149	174	214	244	255	147
75°	76	98	126	148	153	80
85°	18	21	22	19	18	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	561.5	561.5	561.5	561.5	561.5
2.5°	558.4	559.2	561.5	563.0	563.0
5°	555.4	556.9	560.7	563.0	563.8
7.5°	550.8	553.1	558.4	561.5	562.2
10°	543.9	547.0	553.8	558.4	559.9
12.5°	535.5	540.1	548.5	554.6	556.1
15°	524.9	531.0	540.9	548.5	550.8
17.5°	512.6	520.3	532.5	541.6	544.7
20°	499.7	507.3	522.6	533.2	537.1
22.5°	484.4	494.3	511.9	524.1	527.1
25°	468.4	479.8	498.9	512.6	517.2
27.5°	450.9	464.6	485.2	502.0	505.8
30°	432.5	447.0	470.7	489.0	493.6
32.5°	413.5	430.3	455.4	476.0	482.1
35°	394.4	411.2	438.6	461.5	468.4
37.5°	372.3	392.1	422.6	446.3	454.7
40°	353.2	372.3	405.1	431.0	439.4
42.5°	331.8	352.4	386.8	415.0	424.9
45°	310.5	332.6	369.2	399.0	408.9
47.5°	290.7	312.8	350.9	382.2	392.1
50°	270.1	292.9	332.6	364.6	374.6
52.5°	247.9	273.1	314.3	346.3	357.8
55°	228.1	253.3	294.5	328.0	339.5
57.5°	207.5	233.4	276.2	308.2	318.9
60°	188.4	213.6	255.6	286.8	299.0
62.5°	167.8	193.8	235.0	265.5	276.9
65°	148.8	173.9	214.4	244.1	254.8
67.5°	129.7	154.9	193.0	221.2	233.4
70°	110.6	135.8	170.9	198.3	209.0
72.5°	93.8	116.0	149.5	174.7	184.6
75°	75.5	97.6	125.9	148.0	152.6
77.5°	58.7	78.6	102.2	112.1	113.7
80°	43.5	58.7	74.8	77.0	77.0
82.5°	29.0	40.4	46.5	47.3	46.5
85°	17.5	21.4	22.1	19.1	17.5
87.5°	6.1	6.1	3.8	2.3	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)