

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: P387679

Luminaire Tested: **22CZ2-20HE-SQR-UNV-L940-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: P387679
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-SWPD1-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: 1656.1 lumens
Efficiency: N/A
Efficacy: 103.5 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

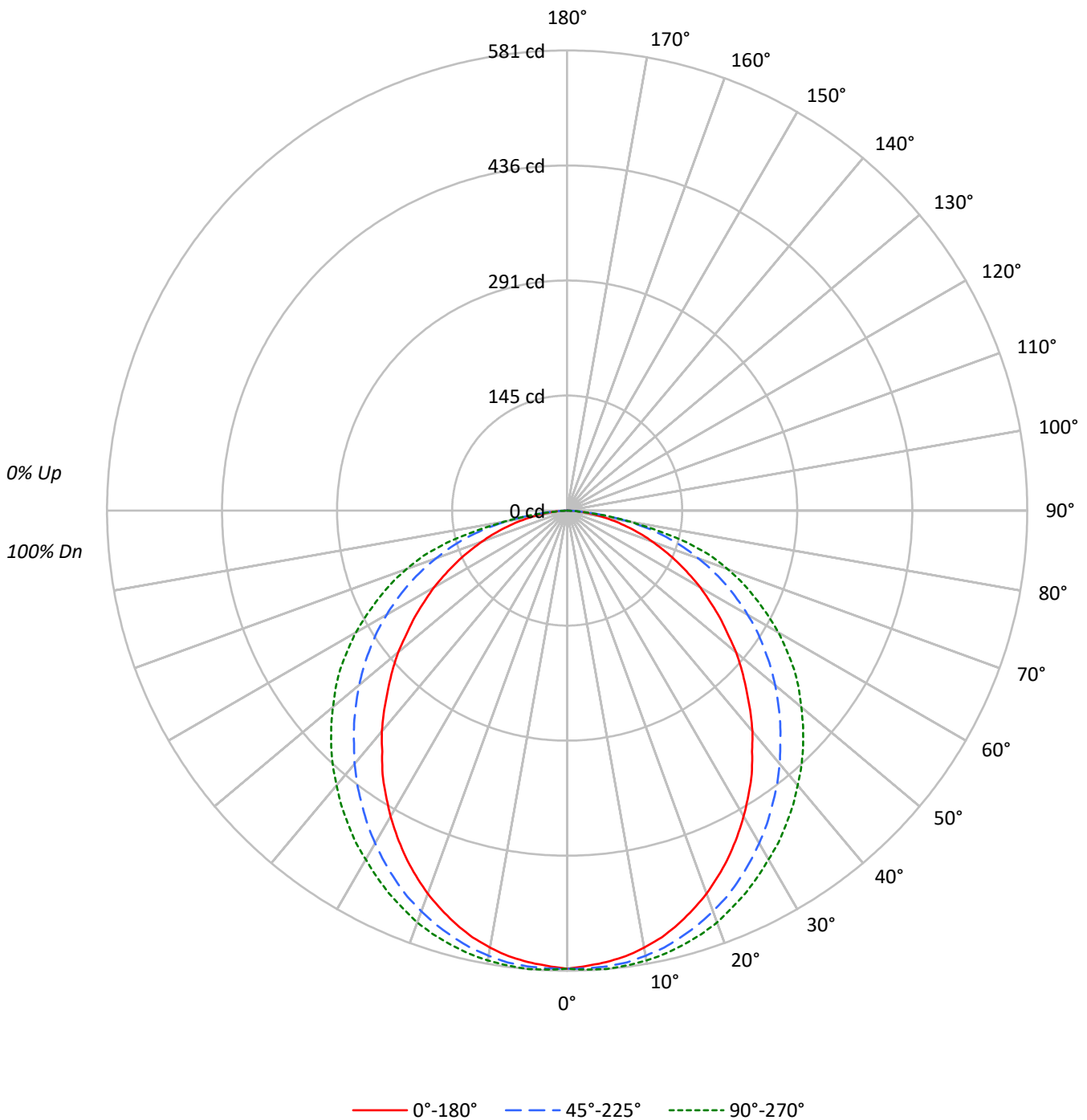
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1557	1557	1557
5°	1546	1561	1569
10°	1531	1559	1576
15°	1507	1553	1581
20°	1474	1542	1585
25°	1433	1526	1582
30°	1385	1507	1580
35°	1335	1485	1585
40°	1278	1466	1591
45°	1217	1448	1603
50°	1165	1435	1616
55°	1103	1423	1641
60°	1045	1417	1658
65°	976	1407	1671
70°	897	1386	1695
75°	809	1349	1634
80°	694	1193	1230
85°	559	704	559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	3.3
10°-20°	156.8	9.5
20°-30°	235.5	14.2
30°-40°	280.9	17.0
40°-50°	290.4	17.5
50°-60°	267.0	16.1
60°-70°	212.6	12.8
70°-80°	129.9	7.8
80°-90°	28.2	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°	447.2	27.0
0°-40°	728.0	44.0
0°-60°	1285.5	77.6
0°-90°	1656.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1656.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	572	574	578	580	581	54
15°	541	547	557	565	568	152
25°	483	494	514	528	533	222
35°	406	424	452	476	483	254
45°	320	343	380	411	421	247
55°	235	261	303	338	350	210
65°	153	179	221	252	262	152
75°	78	101	130	152	157	83
85°	18	22	23	20	18	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	578.5	578.5	578.5	578.5	578.5
2.5°	575.4	576.2	578.5	580.1	580.1
5°	572.2	573.8	577.7	580.1	580.9
7.5°	567.5	569.9	575.4	578.5	579.3
10°	560.4	563.6	570.7	575.4	576.9
12.5°	551.8	556.5	565.2	571.4	573.0
15°	540.8	547.1	557.3	565.2	567.5
17.5°	528.2	536.1	548.6	558.1	561.2
20°	514.8	522.7	538.4	549.4	553.4
22.5°	499.1	509.3	527.4	540.0	543.1
25°	482.6	494.4	514.1	528.2	532.9
27.5°	464.5	478.7	499.9	517.2	521.1
30°	445.7	460.6	485.0	503.8	508.6
32.5°	426.0	443.3	469.3	490.5	496.8
35°	406.4	423.7	452.0	475.5	482.6
37.5°	383.6	404.0	435.5	459.8	468.5
40°	363.9	383.6	417.4	444.1	452.8
42.5°	341.9	363.1	398.5	427.6	437.8
45°	319.9	342.7	380.4	411.1	421.3
47.5°	299.5	322.3	361.6	393.8	404.0
50°	278.3	301.8	342.7	375.7	385.9
52.5°	255.5	281.4	323.8	356.9	368.6
55°	235.0	261.0	303.4	338.0	349.8
57.5°	213.8	240.5	284.5	317.6	328.6
60°	194.1	220.1	263.3	295.5	308.1
62.5°	172.9	199.7	242.1	273.5	285.3
65°	153.3	179.2	220.9	251.5	262.5
67.5°	133.6	159.6	198.9	227.9	240.5
70°	114.0	139.9	176.1	204.4	215.4
72.5°	96.7	119.5	154.1	180.0	190.2
75°	77.8	100.6	129.7	152.5	157.2
77.5°	60.5	81.0	105.3	115.5	117.1
80°	44.8	60.5	77.0	79.4	79.4
82.5°	29.9	41.7	47.9	48.7	47.9
85°	18.1	22.0	22.8	19.7	18.1
87.5°	6.3	6.3	3.9	2.4	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)