

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: P271971

Luminaire Tested: **22CZ2-20-UNV-L940-CD1-U**

Issue Date: 3/3/2020

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: P271971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (56) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

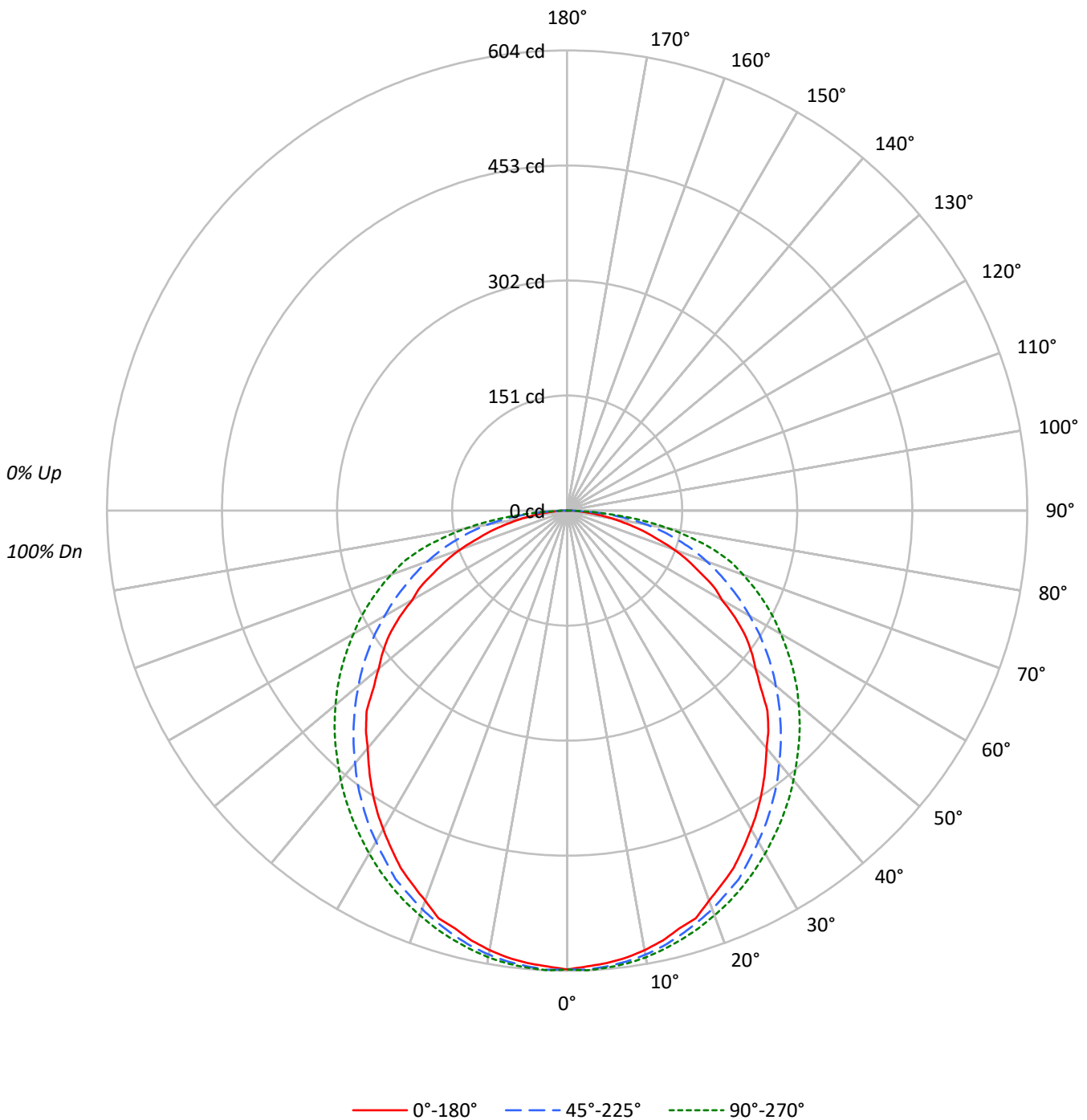
Lumens per Lamp: N/A
Luminaire Lumens: 1795.0 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 17.9
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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1621	1621	1621
5°	1610	1622	1627
10°	1601	1617	1627
15°	1582	1606	1623
20°	1560	1594	1619
25°	1536	1584	1617
30°	1500	1559	1615
35°	1467	1541	1617
40°	1430	1521	1624
45°	1416	1507	1638
50°	1352	1496	1662
55°	1338	1491	1697
60°	1262	1489	1743
65°	1225	1499	1822
70°	1176	1534	1933
75°	1072	1581	2082
80°	919	1638	2103
85°	744	1565	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	3.2
10°-20°	162.6	9.1
20°-30°	244.7	13.6
30°-40°	293.7	16.4
40°-50°	306.9	17.1
50°-60°	286.0	15.9
60°-70°	234.6	13.1
70°-80°	158.1	8.8
80°-90°	51.5	2.9
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°	464.2	25.9
0°-40°	757.9	42.2
0°-60°	1350.8	75.3
0°-90°	1795.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1795.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	602	602	602	602	602	
5°	596	598	600	601	602	57
15°	568	571	576	582	582	160
25°	517	521	534	541	545	238
35°	447	453	469	485	492	279
45°	372	375	396	420	430	284
55°	285	290	318	348	362	253
65°	192	201	235	270	286	191
75°	103	114	152	186	200	108
85°	24	34	51	59	58	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	602.2	602.2	602.2	602.2	602.2
2.5°	598.8	600.5	603.1	604.0	604.0
5°	596.2	597.9	600.5	601.4	602.2
7.5°	591.9	593.6	597.1	598.8	599.7
10°	585.9	587.6	591.9	594.5	595.4
12.5°	578.2	579.9	585.1	588.5	589.4
15°	567.9	571.3	576.5	581.6	582.5
17.5°	561.0	560.1	567.0	573.0	574.7
20°	544.7	549.0	556.7	563.6	565.3
22.5°	530.9	534.4	544.7	552.4	555.8
25°	517.2	520.6	533.5	541.2	544.7
27.5°	500.0	505.2	517.2	528.4	532.6
30°	482.8	488.0	501.7	514.6	519.8
32.5°	465.6	471.7	486.3	500.0	506.0
35°	446.7	452.8	469.1	485.4	492.3
37.5°	427.0	434.7	451.9	469.9	477.7
40°	407.2	415.0	433.0	453.6	462.2
42.5°	390.9	394.3	415.0	437.3	445.9
45°	372.0	374.6	396.1	420.1	430.4
47.5°	344.5	354.0	377.2	403.8	414.1
50°	323.0	333.3	357.4	385.7	396.9
52.5°	305.0	311.9	338.5	366.8	379.7
55°	285.2	290.4	317.9	347.9	361.7
57.5°	261.2	270.6	298.1	329.0	342.8
60°	234.5	246.6	276.6	310.1	323.9
62.5°	217.4	224.2	256.9	290.4	305.8
65°	192.4	201.0	235.4	269.8	286.1
67.5°	171.8	180.4	215.6	250.0	266.3
70°	149.5	158.1	195.0	229.4	245.7
72.5°	123.7	135.7	174.4	208.8	225.9
75°	103.1	114.3	152.1	186.4	200.2
77.5°	79.9	94.5	129.7	158.1	168.4
80°	59.3	73.9	105.7	126.3	135.7
82.5°	40.4	55.0	79.0	94.5	99.7
85°	24.1	34.4	50.7	59.3	58.4
87.5°	11.2	14.6	20.6	20.6	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)