

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: P271961

Luminaire Tested: **14CZ2-60HE-S-UNV-L930-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: P271961
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-S-UNV-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (196) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

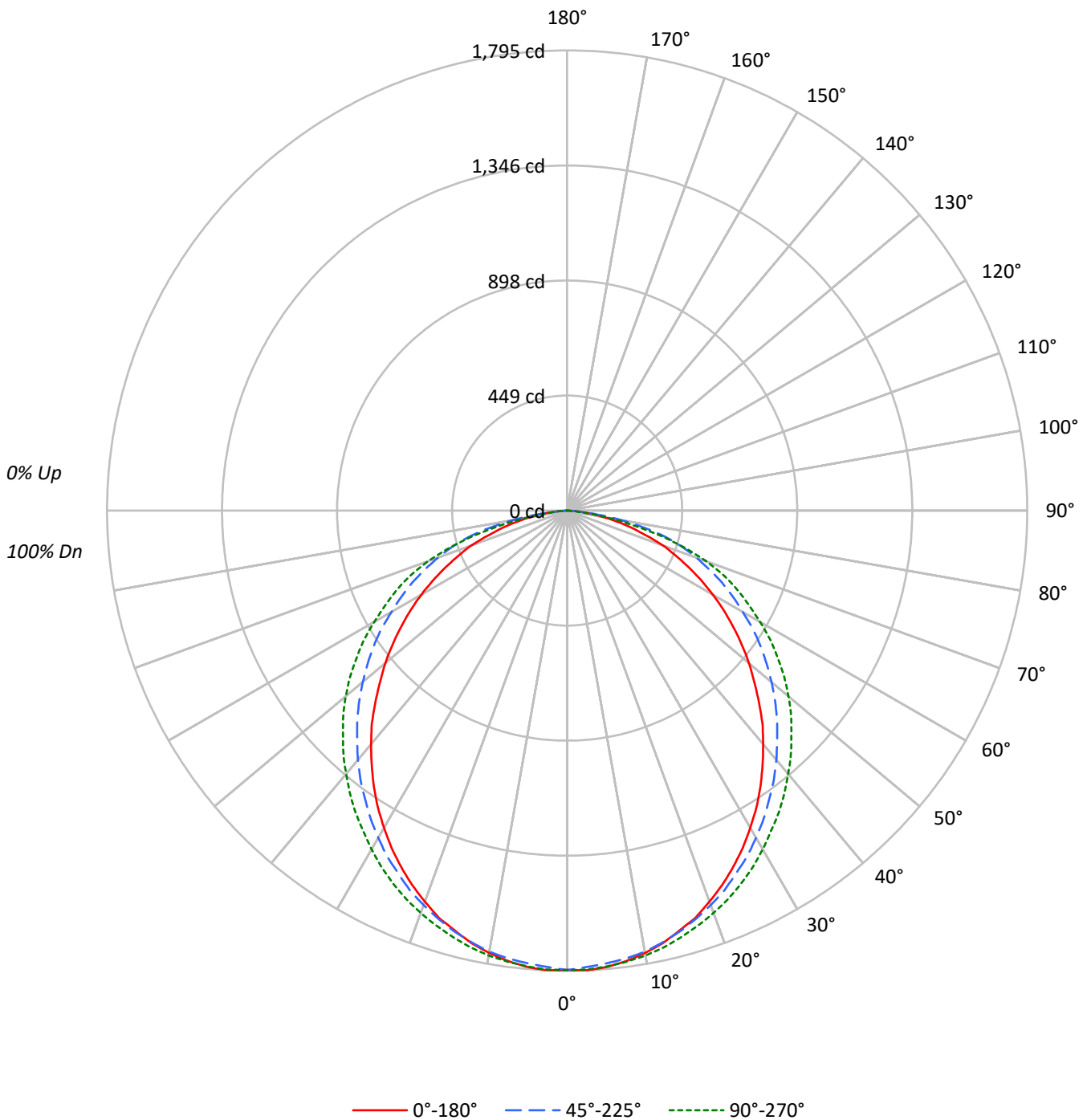
Lumens per Lamp: N/A
Luminaire Lumens: 5020.1 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.3
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	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					100			
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84					84			
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70					70			
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58					58			
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50					50			
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4823	4823	4823
5°	4827	4787	4821
10°	4788	4774	4815
15°	4722	4736	4798
20°	4647	4690	4783
25°	4552	4634	4767
30°	4439	4579	4741
35°	4317	4513	4726
40°	4180	4459	4713
45°	4026	4405	4708
50°	3876	4356	4720
55°	3713	4320	4706
60°	3536	4260	4675
65°	3328	4248	4676
70°	3133	4210	4544
75°	2717	4115	3882
80°	2199	3318	2585
85°	1460	1152	769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.2	3.4
10°-20°	481.5	9.6
20°-30°	722.3	14.4
30°-40°	861.7	17.2
40°-50°	890.8	17.7
50°-60°	813.3	16.2
60°-70°	640.0	12.7
70°-80°	372.6	7.4
80°-90°	68.7	1.4
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°	1373.1	27.4
0°-40°	2234.8	44.5
0°-60°	3938.9	78.5
0°-90°	5020.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5020.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1792	1792	1792	1792	1792	
5°	1787	1782	1772	1787	1785	169
15°	1695	1698	1700	1722	1722	478
25°	1533	1541	1561	1598	1605	706
35°	1314	1332	1374	1426	1439	821
45°	1058	1093	1157	1222	1237	817
55°	792	834	921	988	1003	708
65°	523	578	667	719	734	519
75°	261	324	396	388	373	278
85°	47	67	37	30	25	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1792.1	1792.1	1792.1	1792.1	1792.1
2.5°	1794.6	1789.6	1782.1	1794.6	1792.1
5°	1787.1	1782.1	1772.2	1787.1	1784.6
7.5°	1772.2	1767.2	1762.2	1777.2	1774.7
10°	1752.3	1749.8	1747.3	1764.7	1762.2
12.5°	1727.4	1727.4	1724.9	1744.8	1744.8
15°	1695.0	1697.5	1700.0	1722.4	1722.4
17.5°	1665.2	1662.7	1670.1	1695.0	1697.5
20°	1622.8	1627.8	1637.8	1667.6	1670.1
22.5°	1580.5	1585.5	1602.9	1632.8	1640.3
25°	1533.2	1540.7	1560.6	1597.9	1605.4
27.5°	1483.5	1493.4	1520.8	1560.6	1568.1
30°	1428.7	1443.6	1473.5	1518.3	1525.8
32.5°	1373.9	1388.9	1426.2	1471.0	1481.0
35°	1314.2	1331.6	1373.9	1426.2	1438.7
37.5°	1252.0	1274.4	1324.2	1376.4	1391.4
40°	1189.8	1214.6	1269.4	1324.2	1341.6
42.5°	1127.5	1152.4	1212.2	1274.4	1291.8
45°	1057.8	1092.7	1157.4	1222.1	1237.0
47.5°	990.6	1028.0	1100.1	1164.9	1184.8
50°	925.9	963.2	1040.4	1107.6	1127.5
52.5°	858.7	898.5	980.7	1050.4	1067.8
55°	791.5	833.8	920.9	988.1	1003.1
57.5°	724.3	769.1	858.7	923.4	940.8
60°	657.1	704.4	791.5	856.2	868.7
62.5°	589.9	639.7	729.3	786.5	799.0
65°	522.7	577.5	667.1	719.3	734.3
67.5°	458.0	512.7	599.9	649.6	662.1
70°	398.2	448.0	535.1	572.5	577.5
72.5°	323.6	385.8	470.4	490.3	477.9
75°	261.3	323.6	395.8	388.3	373.4
77.5°	199.1	261.3	308.6	283.7	263.8
80°	141.9	204.1	214.1	176.7	166.8
82.5°	92.1	141.9	119.5	92.1	74.7
85°	47.3	67.2	37.3	29.9	24.9
87.5°	14.9	10.0	5.0	5.0	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)