

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: P294841

Luminaire Tested: **22CZ2-29HE-HRP-UNV-L940-CD1-U**

Issue Date: 12/2/2019

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: P294841
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-HRP-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (196) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2023.6 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

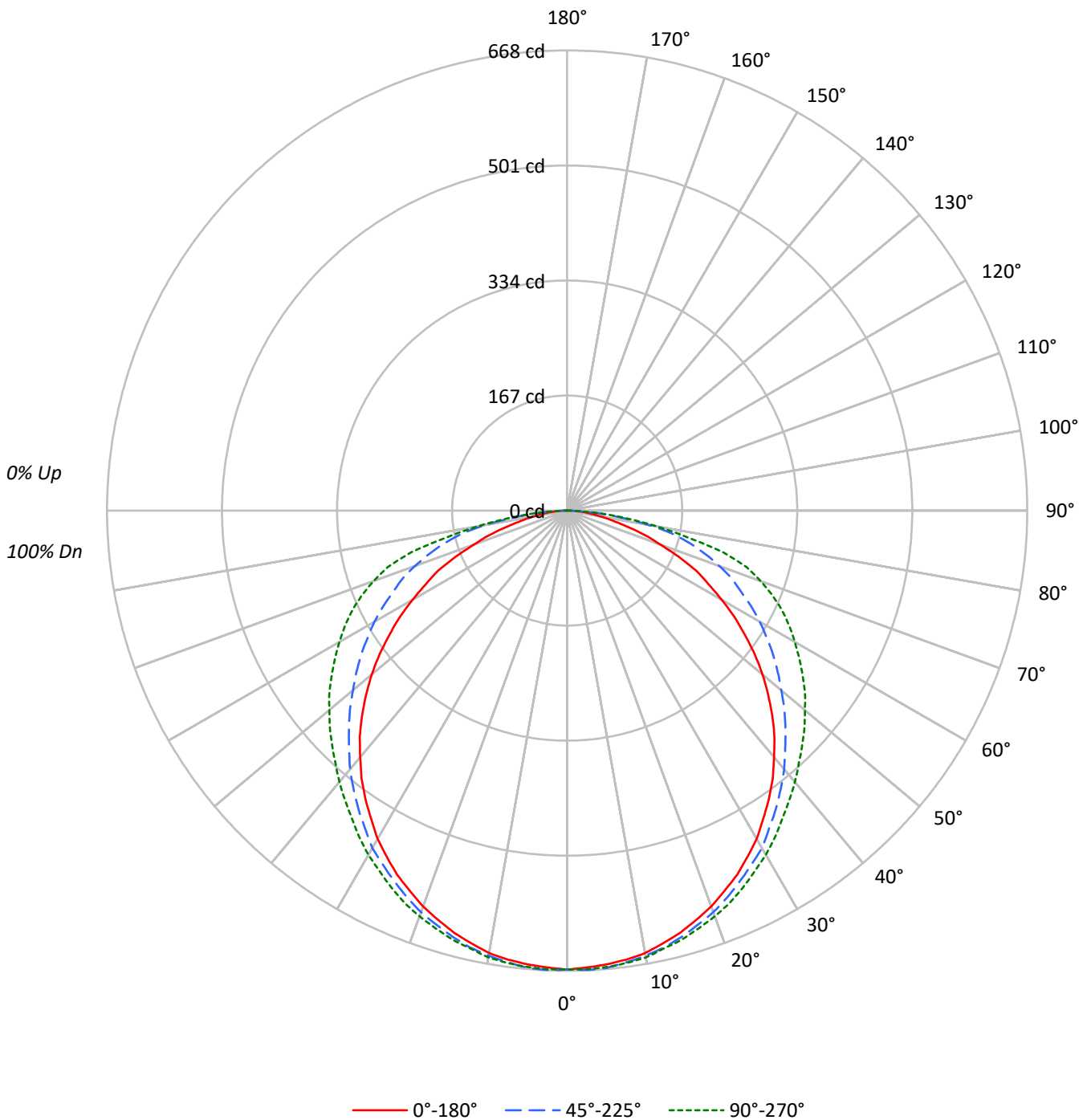
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P294841

CATALOG NUMBER: 22CZ2-29HE-HRP-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P294841

CATALOG NUMBER: 22CZ2-29HE-HRP-UNV-L940-CD1-U

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	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73		80	75	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	52	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		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
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	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1793	1793	1793
5°	1786	1800	1797
10°	1782	1793	1800
15°	1767	1785	1796
20°	1751	1777	1795
25°	1732	1762	1793
30°	1710	1757	1793
35°	1677	1736	1791
40°	1641	1722	1807
45°	1603	1705	1836
50°	1550	1699	1886
55°	1479	1713	1958
60°	1394	1738	2054
65°	1317	1772	2195
70°	1125	1848	2350
75°	942	1925	2442
80°	772	1860	2038
85°	670	1380	1497



TEST NUMBER: P294841

CATALOG NUMBER: 22CZ2-29HE-HRP-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	3.1
10°-20°	180.6	8.9
20°-30°	273.8	13.5
30°-40°	330.6	16.3
40°-50°	347.4	17.2
50°-60°	326.8	16.2
60°-70°	272.5	13.5
70°-80°	180.6	8.9
80°-90°	48.1	2.4
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°	517.6	25.6
0°-40°	848.2	41.9
0°-60°	1522.4	75.2
0°-90°	2023.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2023.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	666	666	666	666	666	
5°	661	662	666	666	665	63
15°	634	637	641	643	645	179
25°	583	587	594	601	604	269
35°	511	516	528	540	545	319
45°	421	428	448	471	482	324
55°	315	329	365	402	417	282
65°	207	225	278	324	345	201
75°	91	126	185	223	235	98
85°	22	33	45	48	48	25
90°	0	0	0	0	0	



TEST NUMBER: P294841

CATALOG NUMBER: 22CZ2-29HE-HRP-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	666.3	666.3	666.3	666.3	666.3
2.5°	663.8	665.1	667.6	667.6	666.3
5°	661.2	662.5	666.3	666.3	665.1
7.5°	657.4	658.7	661.2	663.8	662.5
10°	652.3	653.6	656.1	658.7	658.7
12.5°	643.4	644.6	649.7	651.0	651.0
15°	634.4	637.0	640.8	643.4	644.6
17.5°	622.9	625.5	630.6	635.7	635.7
20°	611.5	614.0	620.4	625.5	626.8
22.5°	597.4	601.2	607.6	614.0	616.6
25°	583.4	587.2	593.6	601.2	603.8
27.5°	566.8	570.6	579.5	588.5	589.8
30°	550.2	554.0	565.5	573.2	577.0
32.5°	529.8	534.9	546.3	557.8	561.7
35°	510.6	515.7	528.5	540.0	545.1
37.5°	490.2	495.3	509.3	523.4	529.8
40°	467.2	473.6	490.2	505.5	514.4
42.5°	445.5	451.9	468.5	488.9	497.8
45°	421.3	427.6	448.1	471.0	482.5
47.5°	395.7	403.4	427.6	455.7	467.2
50°	370.2	379.1	405.9	437.8	450.6
52.5°	343.4	354.9	385.5	420.0	435.3
55°	315.3	329.3	365.1	402.1	417.4
57.5°	288.5	301.3	343.4	383.0	399.5
60°	259.1	275.7	323.0	363.8	381.7
62.5°	231.0	248.9	301.3	344.7	363.8
65°	206.8	224.7	278.3	324.2	344.7
67.5°	174.9	199.1	259.1	302.5	323.0
70°	143.0	176.2	234.9	279.6	298.7
72.5°	118.7	150.6	210.6	255.3	273.2
75°	90.6	126.4	185.1	223.4	234.9
77.5°	67.7	104.7	158.3	177.4	178.7
80°	49.8	80.4	120.0	126.4	131.5
82.5°	34.5	56.2	77.9	85.5	88.1
85°	21.7	33.2	44.7	48.5	48.5
87.5°	11.5	12.8	15.3	15.3	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)