

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: P274761

Luminaire Tested: **22CZ2-39HE-RDP-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: P274761
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-RDP-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
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: 2247.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

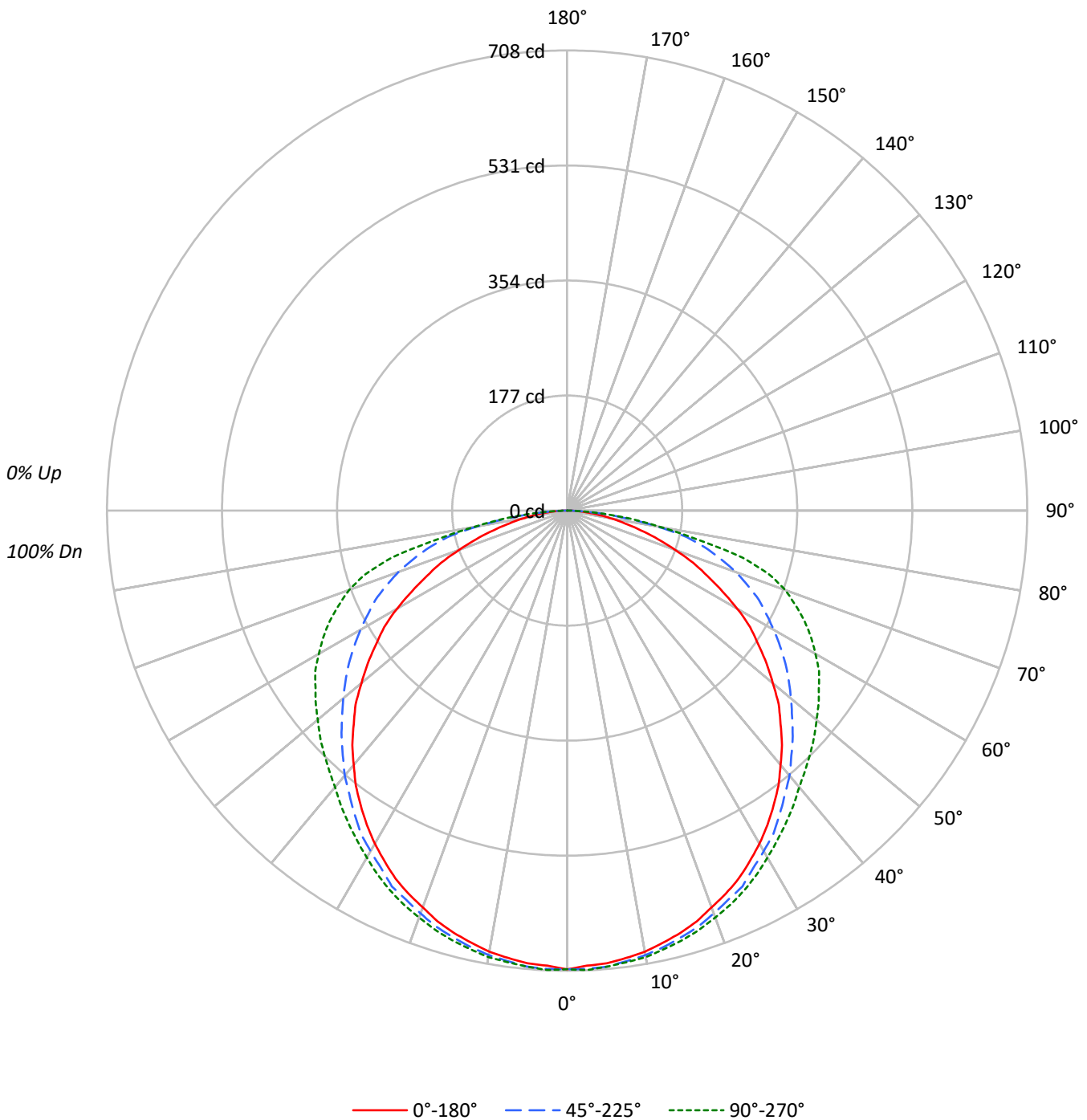
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1899	1899	1899
5°	1889	1902	1902
10°	1884	1897	1906
15°	1874	1893	1906
20°	1860	1889	1908
25°	1855	1894	1914
30°	1839	1880	1916
35°	1819	1873	1928
40°	1794	1870	1951
45°	1768	1868	2013
50°	1730	1882	2097
55°	1683	1923	2218
60°	1628	1975	2375
65°	1515	2073	2568
70°	1392	2172	2809
75°	1221	2285	2905
80°	1051	2177	2280
85°	920	1581	1735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	3.0
10°-20°	191.7	8.5
20°-30°	292.5	13.0
30°-40°	357.1	15.9
40°-50°	381.8	17.0
50°-60°	368.6	16.4
60°-70°	317.3	14.1
70°-80°	214.6	9.6
80°-90°	56.6	2.5
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°	550.9	24.5
0°-40°	908.0	40.4
0°-60°	1658.4	73.8
0°-90°	2247.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2247.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	699	701	704	704	704	66
15°	673	674	679	683	684	190
25°	625	628	638	641	645	288
35°	554	559	570	582	587	346
45°	464	473	491	516	529	359
55°	359	370	410	451	473	321
65°	238	261	326	377	403	237
75°	117	155	220	264	279	126
85°	30	41	51	53	56	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	705.8	705.8	705.8	705.8	705.8
2.5°	700.9	702.5	705.8	705.8	707.5
5°	699.2	700.9	704.2	704.2	704.2
7.5°	694.3	695.9	699.2	700.9	700.9
10°	689.3	690.9	694.3	695.9	697.6
12.5°	681.0	682.7	687.6	690.9	690.9
15°	672.8	674.4	679.4	682.7	684.3
17.5°	662.8	666.2	671.1	674.4	676.1
20°	649.6	652.9	659.5	664.5	666.2
22.5°	638.0	641.4	648.0	652.9	656.2
25°	624.8	628.1	638.0	641.4	644.7
27.5°	608.3	611.6	619.9	626.5	631.4
30°	591.8	595.1	605.0	613.3	616.6
32.5°	573.6	578.5	590.1	596.7	601.7
35°	553.7	558.7	570.3	581.8	586.8
37.5°	533.9	538.9	550.4	565.3	571.9
40°	510.8	517.4	532.3	552.1	555.4
42.5°	489.3	497.5	510.8	533.9	542.2
45°	464.5	472.8	490.9	515.7	529.0
47.5°	441.3	449.6	469.4	499.2	515.7
50°	413.2	424.8	449.6	484.3	500.9
52.5°	386.8	396.7	429.8	467.8	487.6
55°	358.7	370.3	409.9	451.3	472.8
57.5°	333.9	343.8	388.4	434.7	459.5
60°	302.5	315.7	367.0	416.6	441.3
62.5°	269.4	289.3	345.5	396.7	423.2
65°	238.0	261.2	325.6	376.9	403.3
67.5°	209.9	234.7	300.8	355.4	380.2
70°	176.9	208.3	276.0	328.9	357.0
72.5°	147.1	181.8	247.9	300.8	325.6
75°	117.4	155.4	219.8	264.5	279.4
77.5°	90.9	127.3	188.4	201.7	203.3
80°	67.8	100.8	140.5	142.2	147.1
82.5°	46.3	71.1	90.9	99.2	100.8
85°	29.8	41.3	51.2	52.9	56.2
87.5°	13.2	14.9	18.2	16.5	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)