

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: P274733

Luminaire Tested: **22CZ2-20HE-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: P274733
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: 22CZ2-20HE-RDP-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1169.0 lumens
Efficiency: N/A
Efficacy: 73.1 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

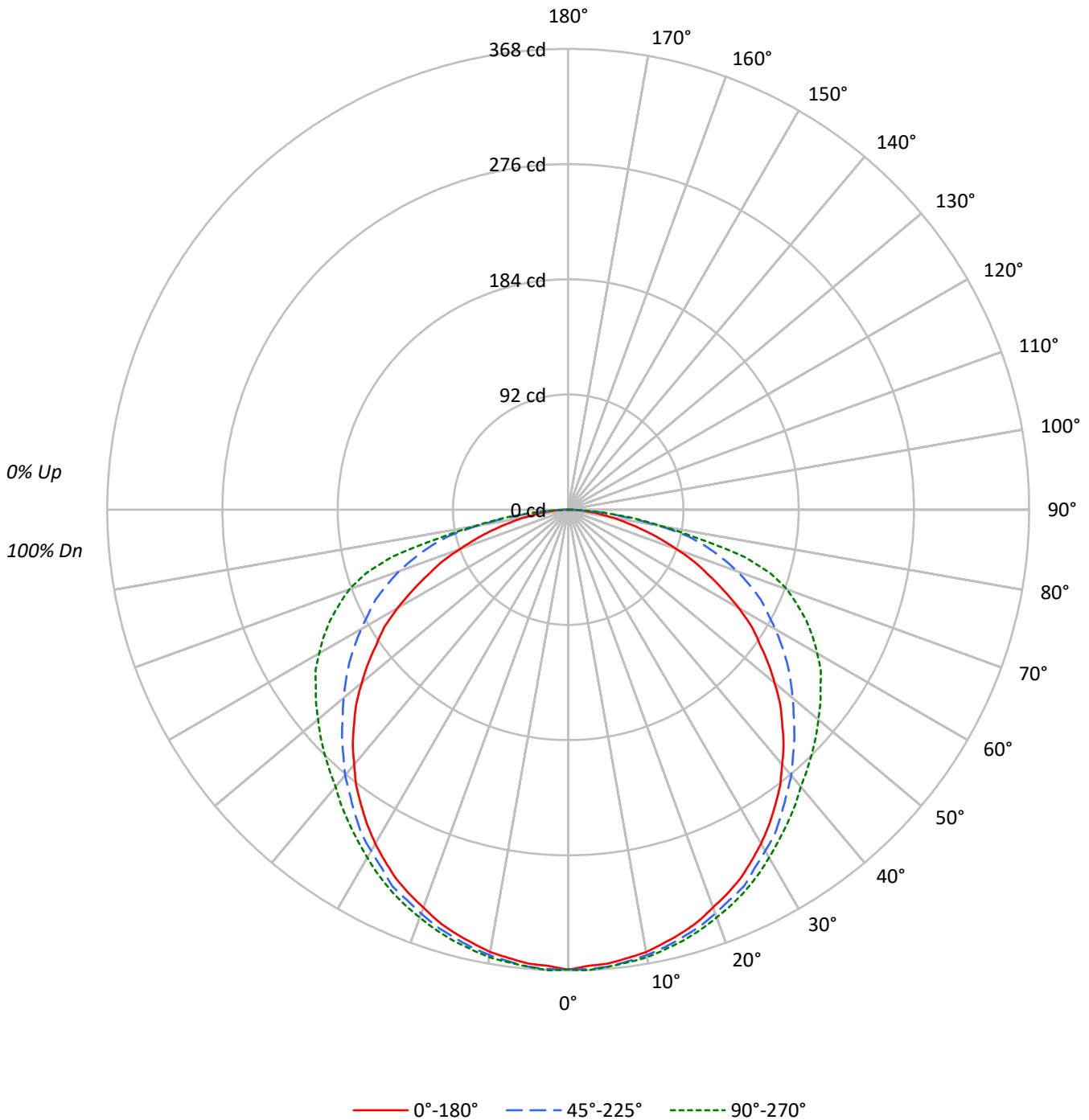
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	988	988	988
5°	983	989	989
10°	980	987	992
15°	975	985	992
20°	968	983	993
25°	965	985	996
30°	957	978	997
35°	946	975	1003
40°	933	973	1015
45°	919	972	1047
50°	900	979	1091
55°	875	1001	1154
60°	847	1027	1236
65°	788	1079	1336
70°	724	1130	1462
75°	635	1189	1511
80°	547	1133	1185
85°	479	824	902



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.7	3.0
10°-20°	99.7	8.5
20°-30°	152.2	13.0
30°-40°	185.8	15.9
40°-50°	198.6	17.0
50°-60°	191.7	16.4
60°-70°	165.1	14.1
70°-80°	111.7	9.6
80°-90°	29.5	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°	286.6	24.5
0°-40°	472.4	40.4
0°-60°	862.8	73.8
0°-90°	1169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	367	367	367	367	367	
5°	364	365	366	366	366	35
15°	350	351	353	355	356	99
25°	325	327	332	334	335	150
35°	288	291	297	303	305	180
45°	242	246	255	268	275	187
55°	187	193	213	235	246	167
65°	124	136	169	196	210	123
75°	61	81	114	138	145	66
85°	16	22	27	28	29	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	367.2	367.2	367.2	367.2	367.2
2.5°	364.6	365.5	367.2	367.2	368.1
5°	363.8	364.6	366.3	366.3	366.3
7.5°	361.2	362.0	363.8	364.6	364.6
10°	358.6	359.5	361.2	362.0	362.9
12.5°	354.3	355.2	357.7	359.5	359.5
15°	350.0	350.9	353.4	355.2	356.0
17.5°	344.8	346.6	349.1	350.9	351.7
20°	338.0	339.7	343.1	345.7	346.6
22.5°	331.9	333.7	337.1	339.7	341.4
25°	325.1	326.8	331.9	333.7	335.4
27.5°	316.5	318.2	322.5	325.9	328.5
30°	307.9	309.6	314.7	319.0	320.8
32.5°	298.4	301.0	307.0	310.4	313.0
35°	288.1	290.7	296.7	302.7	305.3
37.5°	277.8	280.3	286.4	294.1	297.5
40°	265.7	269.2	276.9	287.2	288.9
42.5°	254.5	258.8	265.7	277.8	282.1
45°	241.6	245.9	255.4	268.3	275.2
47.5°	229.6	233.9	244.2	259.7	268.3
50°	215.0	221.0	233.9	252.0	260.6
52.5°	201.2	206.4	223.6	243.4	253.7
55°	186.6	192.6	213.3	234.8	245.9
57.5°	173.7	178.9	202.1	226.2	239.1
60°	157.4	164.3	190.9	216.7	229.6
62.5°	140.2	150.5	179.7	206.4	220.1
65°	123.8	135.9	169.4	196.1	209.8
67.5°	109.2	122.1	156.5	184.9	197.8
70°	92.0	108.4	143.6	171.1	185.8
72.5°	76.5	94.6	129.0	156.5	169.4
75°	61.1	80.8	114.4	137.6	145.3
77.5°	47.3	66.2	98.0	104.9	105.8
80°	35.3	52.5	73.1	74.0	76.5
82.5°	24.1	37.0	47.3	51.6	52.5
85°	15.5	21.5	26.7	27.5	29.2
87.5°	6.9	7.7	9.5	8.6	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)