

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: P272012

Luminaire Tested: **22CZ2-20HE-S-UNV-L950-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: P272012
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-S-UNV-L950-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (112) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

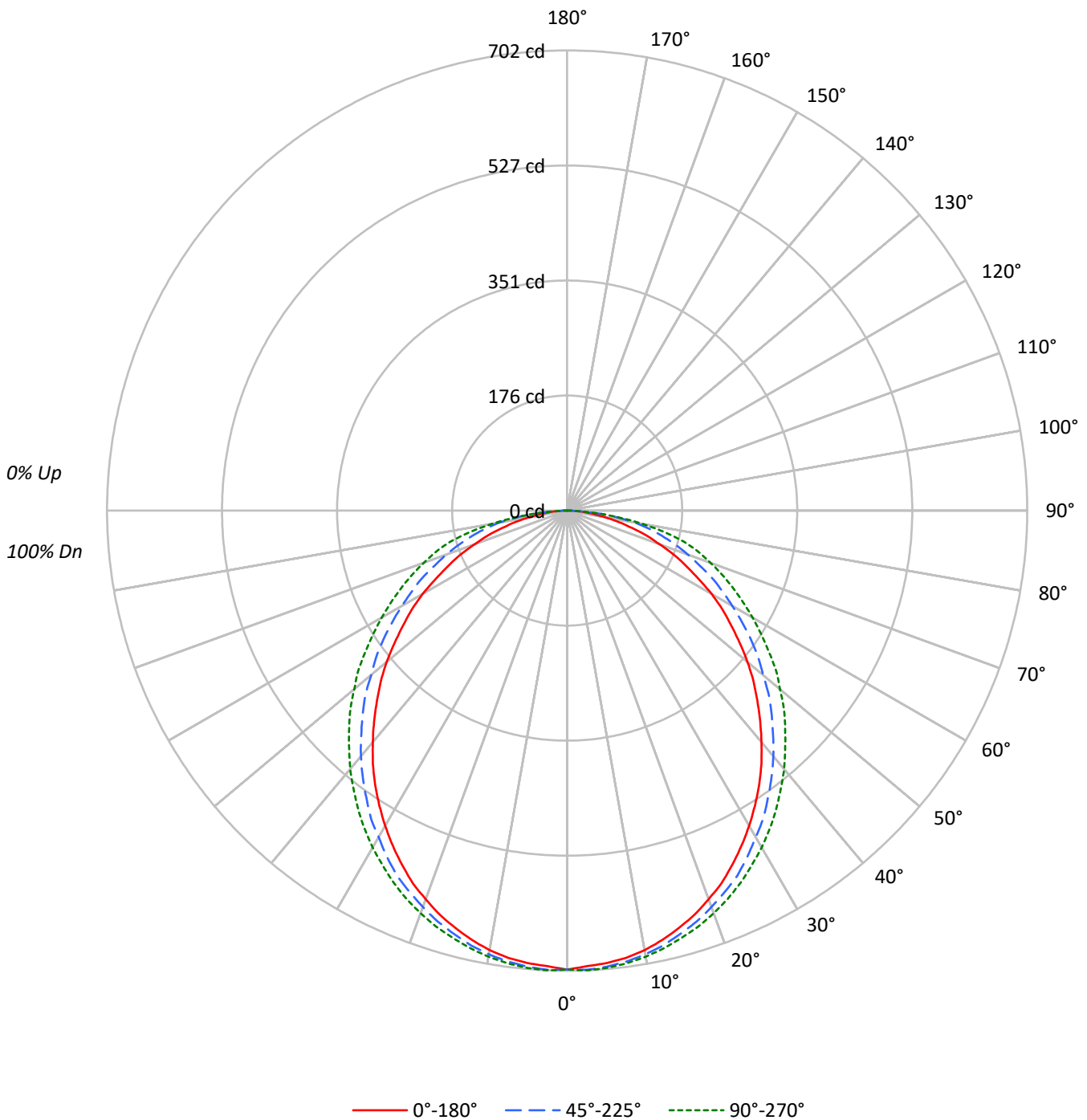
Lumens per Lamp: N/A
Luminaire Lumens: 1954.0 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1884	1884	1884
5°	1872	1887	1891
10°	1861	1878	1888
15°	1836	1862	1880
20°	1807	1843	1872
25°	1770	1825	1860
30°	1725	1788	1844
35°	1677	1755	1827
40°	1620	1720	1809
45°	1561	1679	1790
50°	1504	1634	1775
55°	1433	1604	1762
60°	1369	1565	1757
65°	1277	1556	1777
70°	1176	1542	1829
75°	1062	1564	1925
80°	919	1610	1808
85°	760	1352	1352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	3.4
10°-20°	188.4	9.6
20°-30°	281.9	14.4
30°-40°	333.9	17.1
40°-50°	340.3	17.4
50°-60°	305.0	15.6
60°-70°	238.8	12.2
70°-80°	154.0	7.9
80°-90°	45.5	2.3
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°	536.6	27.5
0°-40°	870.5	44.5
0°-60°	1515.8	77.6
0°-90°	1954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	693	695	698	699	700	66
15°	659	663	668	674	675	186
25°	596	602	614	623	626	274
35°	510	517	534	551	556	319
45°	410	419	441	464	470	317
55°	305	315	342	366	376	274
65°	201	212	244	268	279	199
75°	102	118	150	176	185	109
85°	25	34	44	44	44	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	700.2	700.2	700.2	700.2	700.2
2.5°	695.6	697.4	701.1	702.0	702.0
5°	692.9	694.7	698.4	699.3	700.2
7.5°	688.3	689.2	693.8	695.6	696.5
10°	681.0	682.9	687.4	690.2	691.1
12.5°	671.0	673.7	679.2	682.9	683.8
15°	659.2	662.8	668.3	673.7	674.7
17.5°	646.4	650.0	657.3	663.7	665.5
20°	630.9	635.4	643.7	650.9	653.7
22.5°	615.4	619.0	629.1	638.2	640.9
25°	596.2	601.7	614.5	622.7	626.3
27.5°	576.2	582.6	595.3	606.3	609.9
30°	555.2	561.6	575.3	589.0	593.5
32.5°	533.3	540.6	557.0	570.7	575.3
35°	510.5	516.9	534.3	550.7	556.1
37.5°	486.8	492.3	512.4	529.7	535.2
40°	461.3	468.6	489.6	509.6	515.1
42.5°	435.8	444.0	465.0	486.8	492.3
45°	410.3	419.4	441.3	464.1	470.4
47.5°	385.6	392.9	417.6	439.4	448.6
50°	359.2	366.5	390.2	414.8	423.9
52.5°	331.9	341.9	367.4	391.1	402.1
55°	305.4	315.4	341.9	365.6	375.6
57.5°	280.8	289.0	316.4	341.0	351.0
60°	254.4	261.7	290.8	317.3	326.4
62.5°	226.1	237.0	267.1	291.7	302.7
65°	200.6	212.4	244.3	268.0	279.0
67.5°	176.9	187.8	218.8	244.3	256.2
70°	149.5	164.1	196.0	221.5	232.5
72.5°	127.6	140.4	173.2	198.7	210.6
75°	102.1	117.6	150.4	176.0	185.1
77.5°	81.1	96.6	127.6	147.7	152.3
80°	59.3	74.8	103.9	114.0	116.7
82.5°	40.1	54.7	74.8	77.5	78.4
85°	24.6	33.7	43.8	43.8	43.8
87.5°	11.9	13.7	15.5	14.6	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)