

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: P475139

Luminaire Tested: **22CZ2-24-HRP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475139
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24-HRP-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

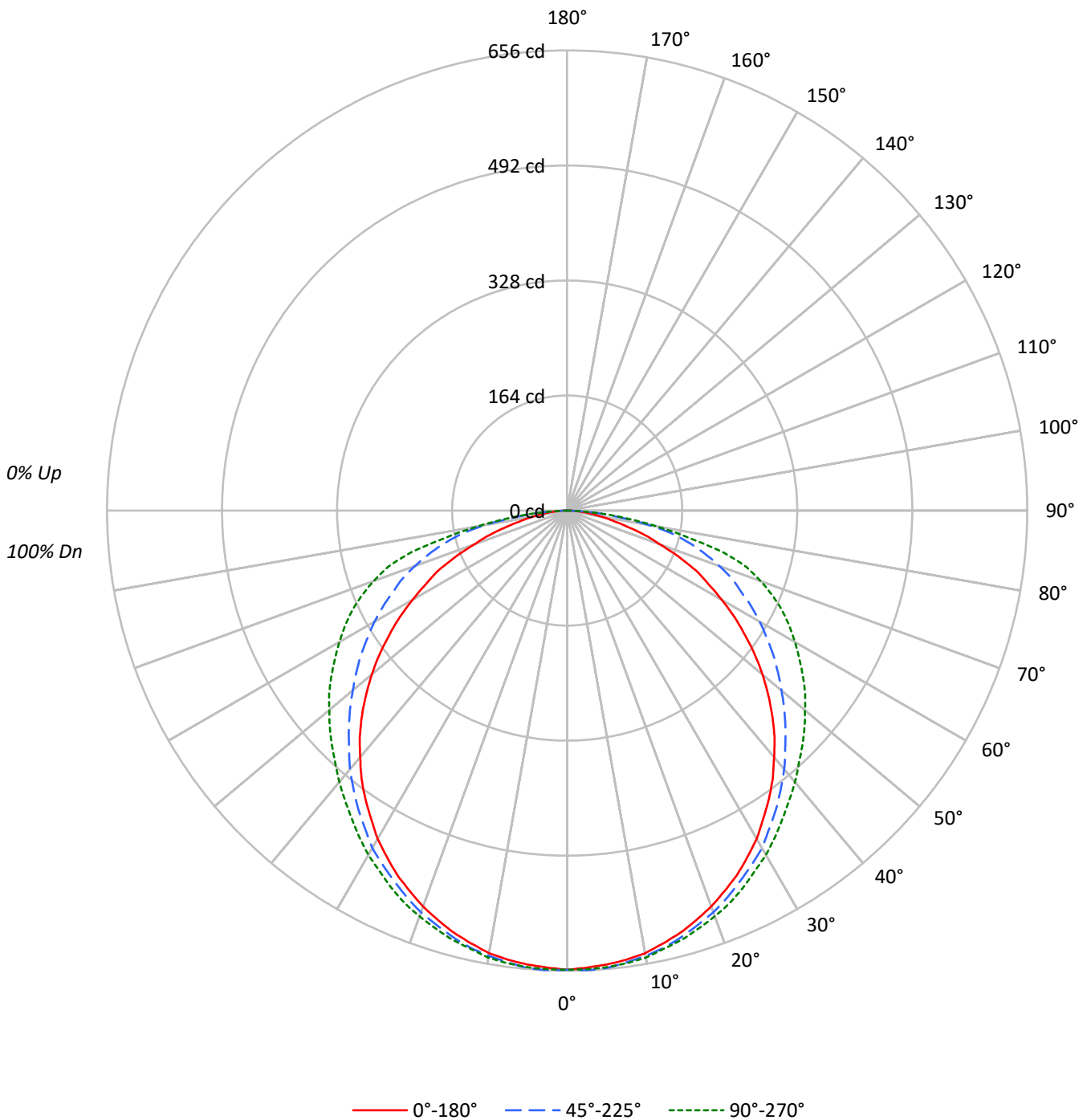
Lumens per Lamp: N/A
Luminaire Lumens: 1987.8 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 18.5
Input Voltage (V): 120
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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	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°	1761	1761	1761
5°	1754	1768	1765
10°	1751	1761	1768
15°	1736	1754	1764
20°	1720	1745	1763
25°	1702	1731	1761
30°	1679	1726	1761
35°	1648	1706	1759
40°	1612	1691	1775
45°	1575	1675	1804
50°	1522	1670	1853
55°	1453	1683	1924
60°	1370	1707	2018
65°	1293	1741	2156
70°	1105	1815	2308
75°	926	1891	2399
80°	759	1827	2002
85°	658	1355	1470



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	3.1
10°-20°	177.5	8.9
20°-30°	268.9	13.5
30°-40°	324.8	16.3
40°-50°	341.2	17.2
50°-60°	321.1	16.2
60°-70°	267.7	13.5
70°-80°	177.4	8.9
80°-90°	47.3	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°	508.4	25.6
0°-40°	833.2	41.9
0°-60°	1495.5	75.2
0°-90°	1987.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1987.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	650	651	654	654	653	62
15°	623	626	630	632	633	176
25°	573	577	583	591	593	264
35°	502	507	519	530	536	314
45°	414	420	440	463	474	319
55°	310	324	359	395	410	277
65°	203	221	273	318	339	198
75°	89	124	182	219	231	97
85°	21	33	44	48	48	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	654.5	654.5	654.5	654.5	654.5
2.5°	652.1	653.3	655.9	655.9	654.5
5°	649.5	650.8	654.5	654.5	653.3
7.5°	645.8	647.1	649.5	652.1	650.8
10°	640.8	642.0	644.6	647.1	647.1
12.5°	632.0	633.3	638.2	639.6	639.6
15°	623.2	625.7	629.5	632.0	633.3
17.5°	612.0	614.4	619.4	624.5	624.5
20°	600.7	603.1	609.4	614.4	615.6
22.5°	586.8	590.6	596.9	603.1	605.7
25°	573.1	576.9	583.1	590.6	593.2
27.5°	556.7	560.5	569.3	578.1	579.3
30°	540.4	544.2	555.5	563.0	566.8
32.5°	520.4	525.4	536.7	548.0	551.7
35°	501.6	506.7	519.2	530.5	535.5
37.5°	481.5	486.5	500.3	514.2	520.4
40°	458.9	465.2	481.5	496.6	505.3
42.5°	437.6	444.0	460.2	480.3	489.0
45°	413.8	420.0	440.2	462.7	474.0
47.5°	388.7	396.2	420.0	447.7	458.9
50°	363.6	372.4	398.8	430.1	442.6
52.5°	337.3	348.6	378.7	412.6	427.6
55°	309.7	323.6	358.7	395.0	410.1
57.5°	283.3	296.0	337.3	376.2	392.4
60°	254.5	270.8	317.2	357.3	374.9
62.5°	227.0	244.6	296.0	338.6	357.3
65°	203.1	220.6	273.4	318.5	338.6
67.5°	171.8	195.6	254.5	297.2	317.2
70°	140.5	173.0	230.7	274.6	293.4
72.5°	116.6	148.0	206.9	250.8	268.4
75°	89.1	124.2	181.9	219.4	230.7
77.5°	66.5	102.8	155.5	174.4	175.6
80°	49.0	79.0	117.9	124.2	129.2
82.5°	33.9	55.2	76.5	84.0	86.5
85°	21.3	32.6	43.9	47.6	47.6
87.5°	11.3	12.5	15.1	15.1	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)