

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: P475115

Luminaire Tested: **22CZ2-24HE-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475115
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-HRP-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1933.9 lumens
Efficiency: N/A
Efficacy: 106.8 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

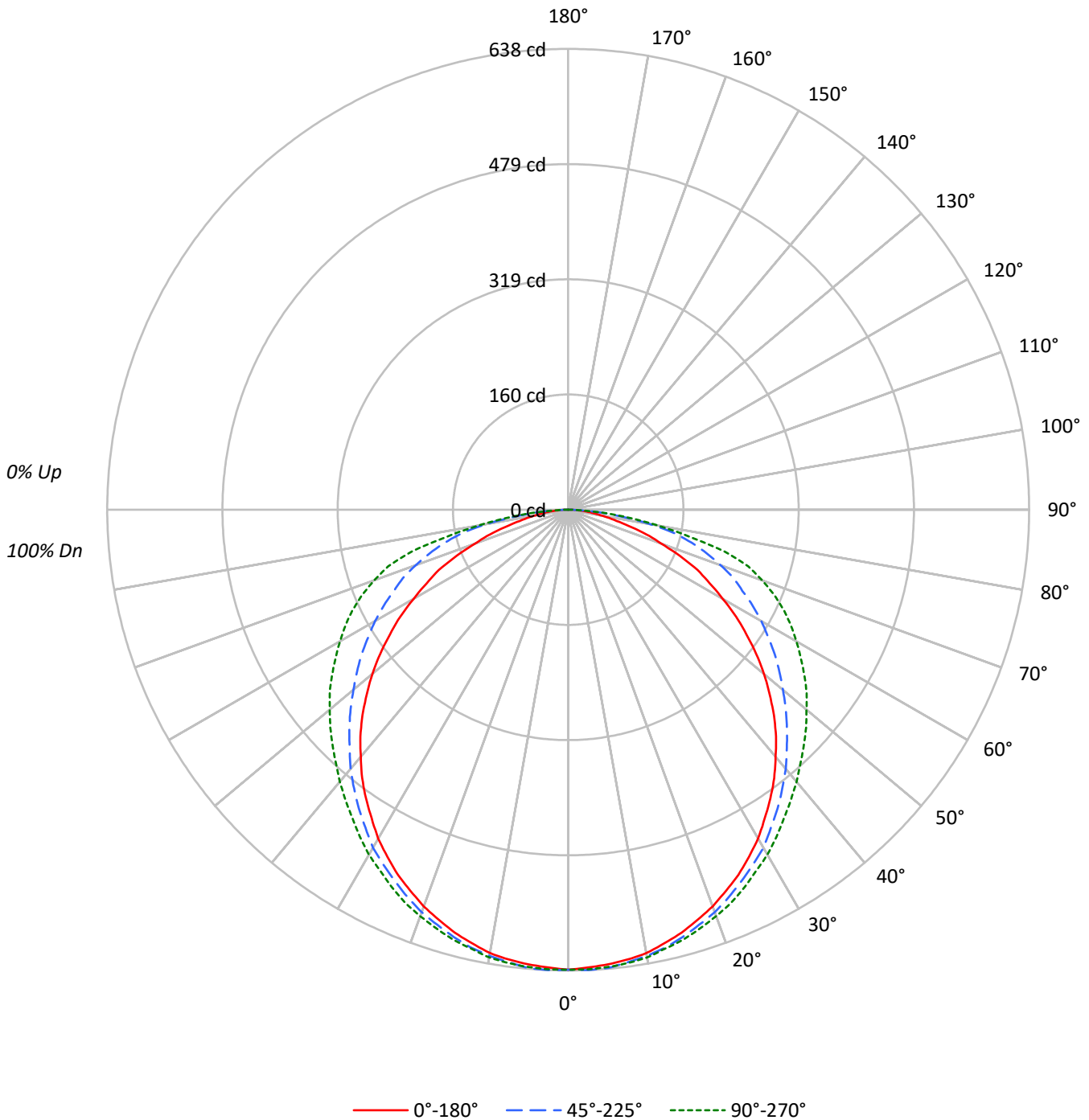
Input Watts (W): 18.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1714	1714	1714
5°	1707	1720	1717
10°	1703	1714	1720
15°	1689	1706	1716
20°	1674	1698	1715
25°	1656	1684	1714
30°	1634	1679	1713
35°	1603	1659	1711
40°	1568	1645	1727
45°	1532	1630	1755
50°	1481	1624	1803
55°	1414	1637	1871
60°	1333	1661	1963
65°	1258	1694	2097
70°	1075	1766	2246
75°	900	1839	2334
80°	738	1777	1946
85°	639	1318	1430



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	3.1
10°-20°	172.6	8.9
20°-30°	261.6	13.5
30°-40°	315.9	16.3
40°-50°	332.0	17.2
50°-60°	312.3	16.2
60°-70°	260.4	13.5
70°-80°	172.6	8.9
80°-90°	46.0	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°	494.6	25.6
0°-40°	810.6	41.9
0°-60°	1454.9	75.2
0°-90°	1933.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1933.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	632	633	637	637	636	60
15°	606	609	612	615	616	171
25°	558	561	567	575	577	257
35°	488	493	505	516	521	305
45°	403	409	428	450	461	310
55°	301	315	349	384	399	270
65°	198	215	266	310	329	192
75°	87	121	177	214	224	94
85°	21	32	43	46	46	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	636.8	636.8	636.8	636.8	636.8
2.5°	634.4	635.6	638.1	638.1	636.8
5°	631.9	633.1	636.8	636.8	635.6
7.5°	628.2	629.5	631.9	634.4	633.1
10°	623.4	624.6	627.1	629.5	629.5
12.5°	614.9	616.1	620.9	622.2	622.2
15°	606.3	608.7	612.4	614.9	616.1
17.5°	595.4	597.8	602.6	607.6	607.6
20°	584.4	586.8	592.9	597.8	598.9
22.5°	570.9	574.6	580.7	586.8	589.2
25°	557.6	561.2	567.3	574.6	577.1
27.5°	541.6	545.3	553.9	562.4	563.6
30°	525.8	529.4	540.4	547.8	551.4
32.5°	506.3	511.1	522.1	533.1	536.8
35°	487.9	492.9	505.1	516.1	520.9
37.5°	468.4	473.3	486.8	500.2	506.3
40°	446.5	452.6	468.4	483.1	491.6
42.5°	425.8	431.9	447.8	467.3	475.8
45°	402.6	408.6	428.2	450.1	461.1
47.5°	378.1	385.5	408.6	435.6	446.5
50°	353.8	362.3	387.9	418.4	430.6
52.5°	328.1	339.1	368.4	401.4	416.0
55°	301.3	314.8	348.9	384.3	398.9
57.5°	275.6	287.9	328.1	366.0	381.8
60°	247.6	263.5	308.6	347.6	364.8
62.5°	220.8	237.9	287.9	329.4	347.6
65°	197.6	214.7	266.0	309.8	329.4
67.5°	167.1	190.3	247.6	289.1	308.6
70°	136.6	168.3	224.5	267.1	285.5
72.5°	113.5	144.0	201.3	244.0	261.1
75°	86.6	120.8	176.9	213.5	224.5
77.5°	64.7	100.0	151.3	169.6	170.8
80°	47.6	76.8	114.7	120.8	125.6
82.5°	33.0	53.7	74.5	81.7	84.2
85°	20.7	31.7	42.7	46.3	46.3
87.5°	11.0	12.2	14.7	14.7	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)