

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: P475173

Luminaire Tested: **22CZ2-24HE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475173
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-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2042.1 lumens
Efficiency: N/A
Efficacy: 112.8 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

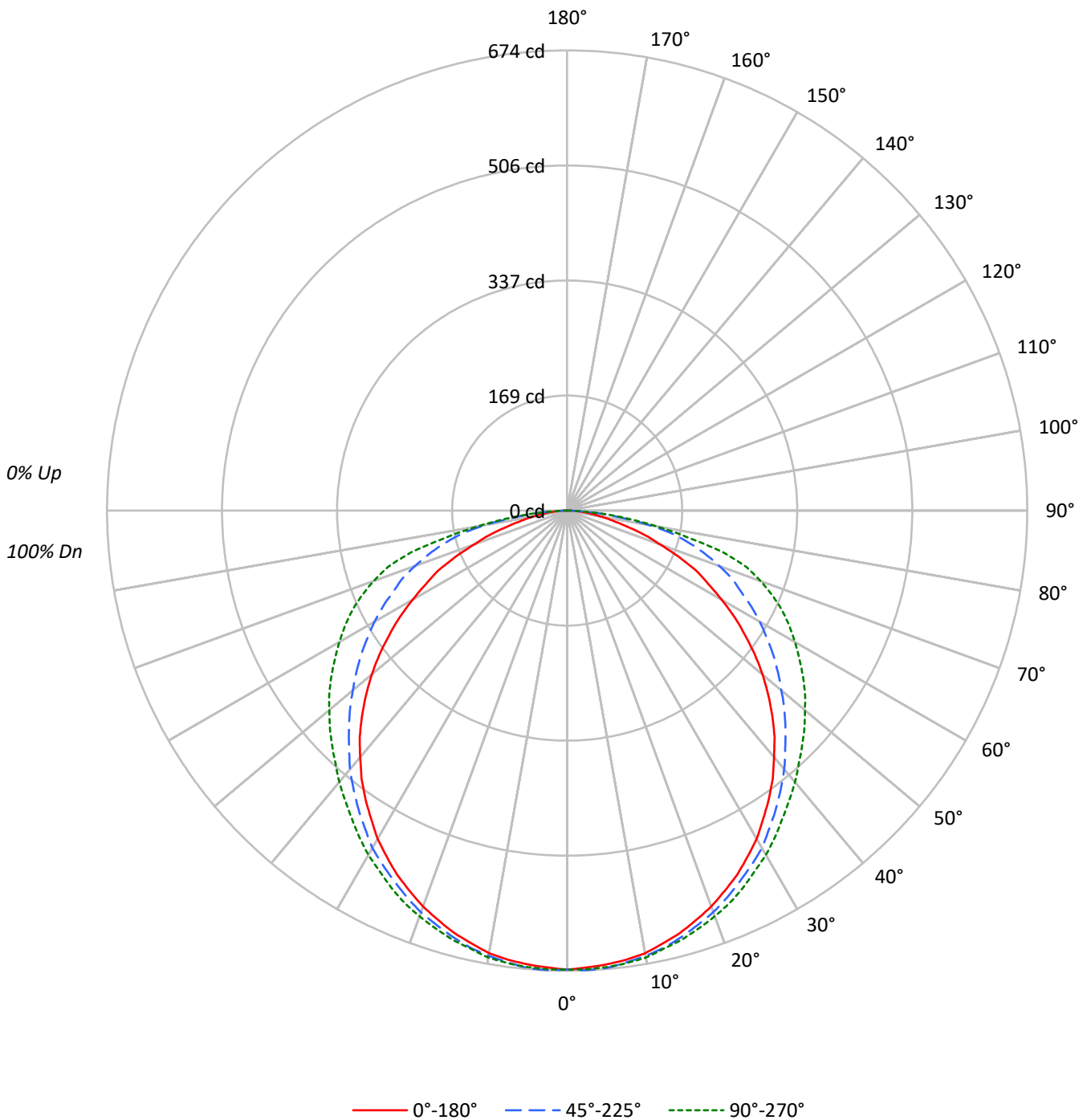
Input Watts (W): 18.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1809	1809	1809
5°	1803	1816	1813
10°	1799	1809	1817
15°	1784	1802	1812
20°	1767	1793	1811
25°	1748	1779	1809
30°	1725	1773	1809
35°	1692	1752	1807
40°	1656	1738	1824
45°	1618	1721	1853
50°	1564	1715	1904
55°	1493	1729	1977
60°	1407	1754	2073
65°	1329	1788	2215
70°	1135	1865	2371
75°	951	1943	2464
80°	779	1877	2056
85°	673	1392	1510



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	3.1
10°-20°	182.3	8.9
20°-30°	276.3	13.5
30°-40°	333.6	16.3
40°-50°	350.5	17.2
50°-60°	329.8	16.2
60°-70°	275.0	13.5
70°-80°	182.2	8.9
80°-90°	48.6	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°	522.3	25.6
0°-40°	855.9	41.9
0°-60°	1536.3	75.2
0°-90°	2042.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2042.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	667	668	672	672	671	63
15°	640	643	647	649	650	181
25°	589	593	599	607	609	271
35°	515	520	533	545	550	322
45°	425	432	452	475	487	327
55°	318	332	368	406	421	285
65°	209	227	281	327	348	203
75°	92	128	187	225	237	99
85°	22	34	45	49	49	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	672.4	672.4	672.4	672.4	672.4
2.5°	669.9	671.1	673.8	673.8	672.4
5°	667.3	668.5	672.4	672.4	671.1
7.5°	663.4	664.8	667.3	669.9	668.5
10°	658.3	659.5	662.2	664.8	664.8
12.5°	649.3	650.5	655.7	657.0	657.0
15°	640.2	642.8	646.7	649.3	650.5
17.5°	628.7	631.2	636.3	641.6	641.6
20°	617.1	619.6	626.1	631.2	632.5
22.5°	602.9	606.7	613.2	619.6	622.2
25°	588.8	592.6	599.0	606.7	609.4
27.5°	571.9	575.8	584.9	593.9	595.1
30°	555.2	559.1	570.7	578.4	582.3
32.5°	534.6	539.7	551.3	562.9	566.8
35°	515.2	520.5	533.3	545.0	550.1
37.5°	494.7	499.8	514.0	528.2	534.6
40°	471.4	477.9	494.7	510.1	519.1
42.5°	449.6	456.1	472.8	493.4	502.4
45°	425.1	431.5	452.2	475.3	486.9
47.5°	399.3	407.0	431.5	460.0	471.4
50°	373.6	382.6	409.7	441.9	454.7
52.5°	346.5	358.1	389.1	423.9	439.2
55°	318.2	332.4	368.5	405.8	421.3
57.5°	291.1	304.1	346.5	386.4	403.2
60°	261.5	278.2	325.9	367.1	385.2
62.5°	233.2	251.3	304.1	347.9	367.1
65°	208.7	226.7	280.8	327.1	347.9
67.5°	176.5	201.0	261.5	305.3	325.9
70°	144.3	177.7	237.0	282.1	301.4
72.5°	119.8	152.0	212.6	257.6	275.7
75°	91.5	127.6	186.9	225.4	237.0
77.5°	68.3	105.6	159.8	179.1	180.4
80°	50.3	81.1	121.1	127.6	132.7
82.5°	34.8	56.7	78.6	86.2	88.9
85°	21.8	33.5	45.1	48.9	48.9
87.5°	11.6	12.9	15.5	15.5	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)