

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: P475186

Luminaire Tested: **22CZ2-65VHE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475186
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-65VHE-HRP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY 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: 5371.9 lumens
Efficiency: N/A
Efficacy: 117.5 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

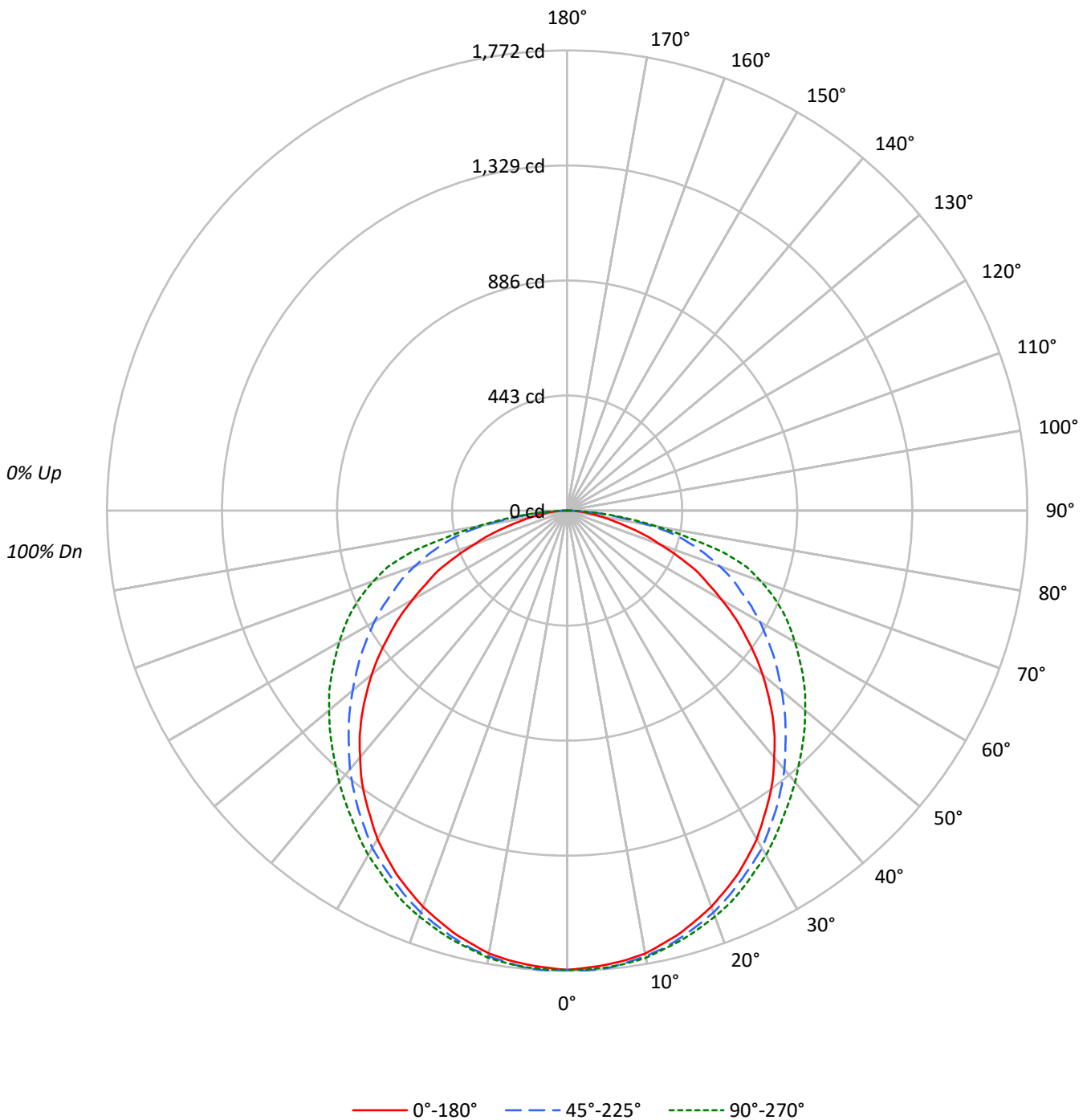
Input Watts (W): 45.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4760	4760	4760
5°	4742	4778	4769
10°	4732	4759	4778
15°	4692	4739	4768
20°	4649	4716	4764
25°	4599	4679	4760
30°	4538	4665	4759
35°	4453	4609	4754
40°	4356	4571	4797
45°	4256	4527	4875
50°	4114	4511	5007
55°	3926	4548	5199
60°	3702	4614	5454
65°	3496	4704	5827
70°	2987	4906	6238
75°	2503	5110	6483
80°	2050	4936	5408
85°	1775	3659	3974



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.7	3.1
10°-20°	479.6	8.9
20°-30°	726.8	13.5
30°-40°	877.6	16.3
40°-50°	922.1	17.2
50°-60°	867.6	16.2
60°-70°	723.4	13.5
70°-80°	479.4	8.9
80°-90°	127.7	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°	1374.0	25.6
0°-40°	2251.6	41.9
0°-60°	4041.3	75.2
0°-90°	5371.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5371.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1769	1769	1769	1769	1769	
5°	1755	1759	1769	1769	1766	167
15°	1684	1691	1701	1708	1711	475
25°	1549	1559	1576	1596	1603	713
35°	1355	1369	1403	1434	1447	847
45°	1118	1135	1190	1250	1281	861
55°	837	874	969	1067	1108	749
65°	549	596	739	861	915	534
75°	241	336	492	593	624	261
85°	58	88	118	129	129	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1768.8	1768.8	1768.8	1768.8	1768.8
2.5°	1762.2	1765.5	1772.4	1772.4	1768.8
5°	1755.3	1758.6	1768.8	1768.8	1765.5
7.5°	1745.1	1748.7	1755.3	1762.2	1758.6
10°	1731.7	1734.9	1741.8	1748.7	1748.7
12.5°	1708.0	1711.3	1724.8	1728.4	1728.4
15°	1684.1	1690.9	1701.1	1708.0	1711.3
17.5°	1653.8	1660.4	1673.9	1687.7	1687.7
20°	1623.3	1629.9	1647.0	1660.4	1663.7
22.5°	1585.9	1596.1	1613.1	1629.9	1636.8
25°	1548.8	1559.0	1575.7	1596.1	1603.0
27.5°	1504.5	1514.6	1538.6	1562.2	1565.5
30°	1460.5	1470.6	1501.2	1521.5	1531.7
32.5°	1406.3	1419.7	1450.3	1480.8	1491.0
35°	1355.4	1369.2	1403.0	1433.5	1447.0
37.5°	1301.2	1314.7	1352.1	1389.5	1406.3
40°	1240.1	1257.2	1301.2	1341.9	1365.6
42.5°	1182.7	1199.8	1243.8	1297.9	1321.6
45°	1118.3	1135.1	1189.6	1250.3	1280.9
47.5°	1050.4	1070.7	1135.1	1209.9	1240.1
50°	982.7	1006.4	1077.6	1162.3	1196.1
52.5°	911.5	942.0	1023.4	1115.0	1155.4
55°	836.9	874.4	969.3	1067.4	1108.1
57.5°	765.7	799.8	911.5	1016.5	1060.5
60°	687.9	731.9	857.3	965.6	1013.3
62.5°	613.3	660.9	799.8	915.1	965.6
65°	549.0	596.3	738.8	860.6	915.1
67.5°	464.3	528.6	687.9	803.1	857.3
70°	379.6	467.6	623.5	742.0	792.9
72.5°	315.2	399.9	559.2	677.7	725.3
75°	240.7	335.6	491.5	593.0	623.5
77.5°	179.6	277.8	420.3	471.2	474.5
80°	132.3	213.4	318.5	335.6	349.0
82.5°	91.6	149.1	206.9	226.9	233.8
85°	57.5	88.0	118.5	128.7	128.7
87.5°	30.5	33.8	40.7	40.7	40.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)