

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: P474074

Luminaire Tested: **24CZ2-55HE-S-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474074
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55HE-S-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5947.4 lumens
Efficiency: N/A
Efficacy: 136.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

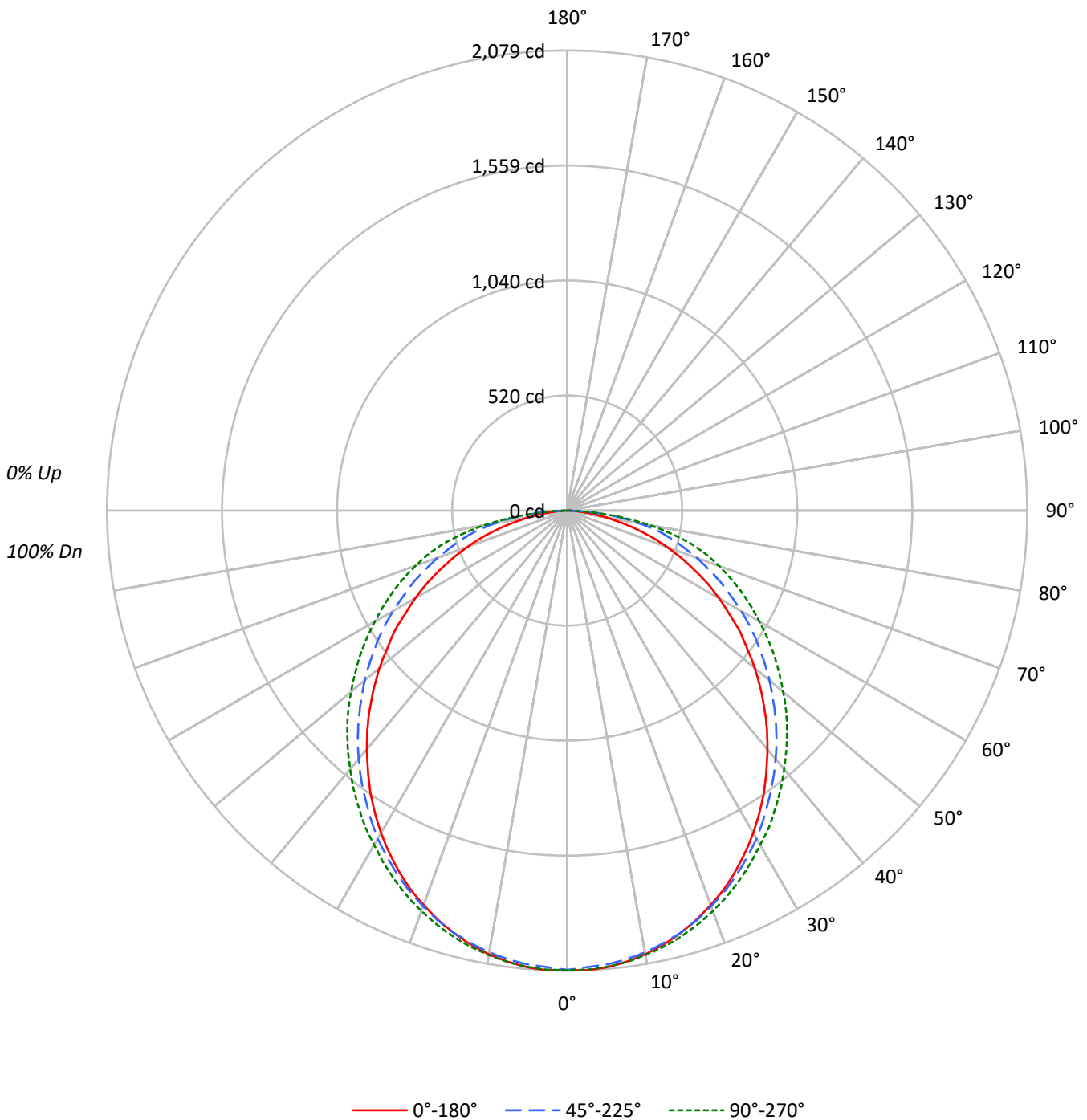
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32					32			
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2793	2793	2793
5°	2797	2780	2795
10°	2781	2770	2786
15°	2753	2752	2775
20°	2715	2723	2757
25°	2670	2693	2735
30°	2614	2659	2709
35°	2548	2612	2694
40°	2473	2574	2678
45°	2398	2534	2673
50°	2317	2499	2667
55°	2234	2468	2681
60°	2132	2445	2700
65°	2018	2435	2765
70°	1883	2448	2863
75°	1676	2519	3017
80°	1370	2573	2944
85°	965	2248	2293



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.3	3.3
10°-20°	559.0	9.4
20°-30°	837.9	14.1
30°-40°	997.9	16.8
40°-50°	1029.0	17.3
50°-60°	938.9	15.8
60°-70°	750.8	12.6
70°-80°	490.4	8.2
80°-90°	147.2	2.5
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°	1593.1	26.8
0°-40°	2591.0	43.6
0°-60°	4558.9	76.7
0°-90°	5947.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5947.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2076	2076	2076	2076	2076	
5°	2071	2067	2058	2071	2069	197
15°	1976	1977	1975	1992	1992	557
25°	1798	1801	1814	1840	1842	828
35°	1551	1562	1590	1630	1640	969
45°	1260	1283	1332	1387	1405	972
55°	952	980	1052	1122	1143	848
65°	634	677	765	840	868	629
75°	322	376	484	563	580	343
85°	62	112	146	148	148	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2075.9	2075.9	2075.9	2075.9	2075.9
2.5°	2078.8	2075.9	2065.2	2077.9	2075.9
5°	2071.0	2067.1	2058.3	2071.0	2069.1
7.5°	2055.4	2053.4	2044.6	2059.3	2057.3
10°	2035.8	2033.9	2027.1	2041.7	2038.8
12.5°	2008.5	2007.5	2002.6	2020.2	2018.3
15°	1976.3	1977.2	1975.3	1991.9	1991.9
17.5°	1939.1	1938.2	1942.1	1962.6	1960.6
20°	1896.2	1897.1	1902.0	1925.5	1925.5
22.5°	1851.2	1850.2	1861.0	1884.4	1886.4
25°	1798.5	1801.4	1814.1	1840.5	1842.4
27.5°	1741.8	1746.7	1762.3	1792.6	1795.5
30°	1682.2	1688.1	1711.5	1739.8	1743.8
32.5°	1616.8	1629.5	1651.0	1687.1	1696.9
35°	1551.3	1562.1	1590.4	1630.4	1640.2
37.5°	1479.0	1496.6	1528.8	1572.8	1585.5
40°	1407.7	1425.3	1465.3	1511.3	1524.9
42.5°	1335.4	1354.0	1399.9	1451.7	1466.3
45°	1260.2	1282.7	1331.5	1387.2	1404.8
47.5°	1183.0	1209.4	1262.1	1322.7	1342.3
50°	1106.8	1133.2	1193.8	1256.3	1273.9
52.5°	1024.8	1058.0	1122.5	1189.9	1207.4
55°	952.5	979.8	1052.1	1121.5	1143.0
57.5°	867.5	904.6	981.8	1052.1	1072.6
60°	792.3	826.5	908.5	979.8	1003.3
62.5°	716.1	751.2	833.3	914.4	935.9
65°	634.0	677.0	764.9	840.1	868.5
67.5°	555.9	600.8	690.7	770.8	800.1
70°	478.7	524.6	622.3	704.3	727.8
72.5°	402.5	450.3	551.9	632.1	659.4
75°	322.4	376.1	484.5	562.7	580.3
77.5°	247.2	306.7	416.2	468.9	481.6
80°	176.8	242.3	332.1	370.2	380.0
82.5°	116.3	179.7	248.1	268.6	265.7
85°	62.5	112.3	145.6	148.5	148.5
87.5°	24.4	44.9	45.9	35.2	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)