

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: P474674

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474674
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55HE-SQR-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5539.5 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

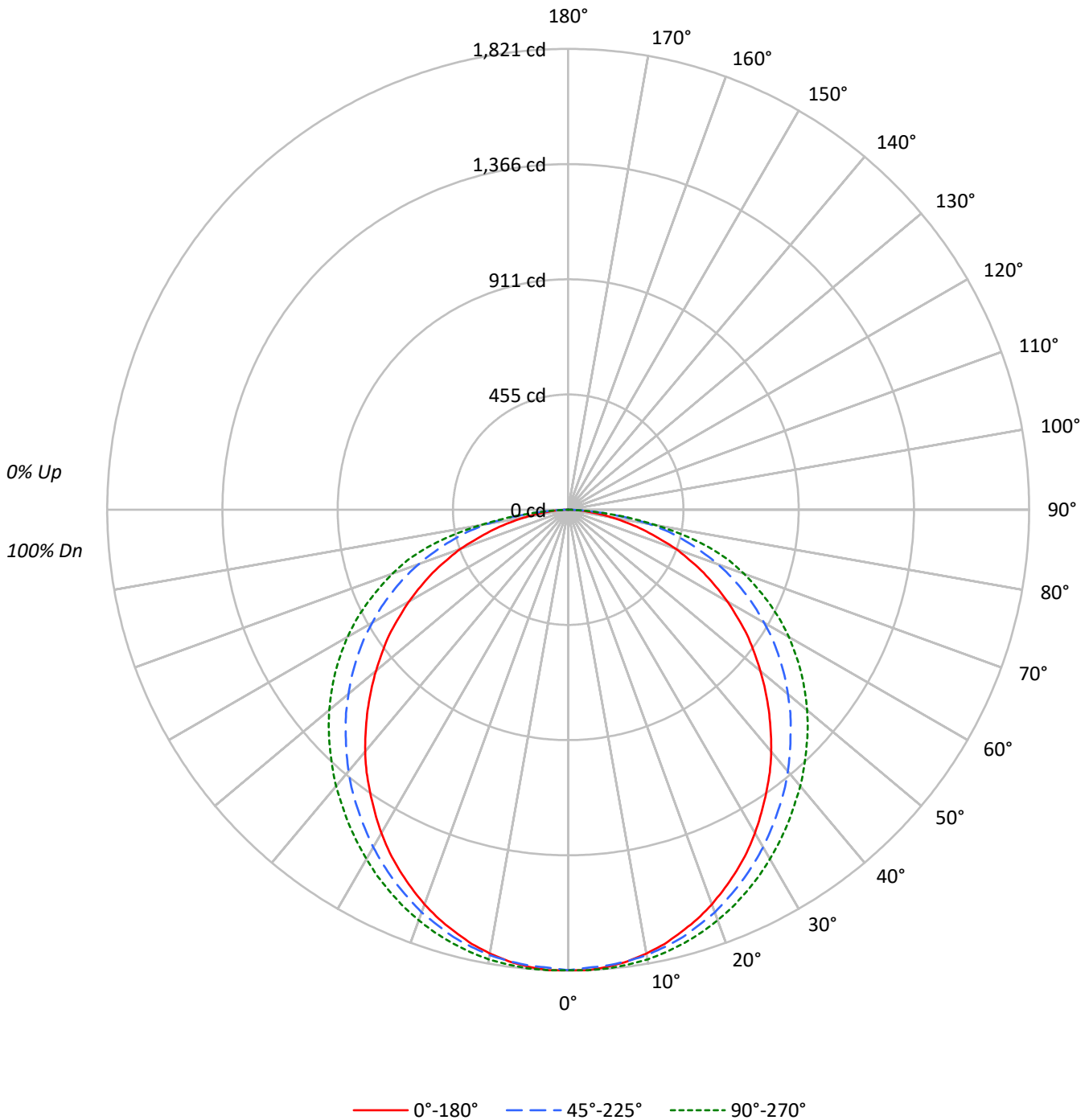
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474674

CATALOG NUMBER: 24CZ2-55HE-SQR-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474674

CATALOG NUMBER: 24CZ2-55HE-SQR-UNV-L840-CD1-U

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	81	75	84	78	73		80	76	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	53	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°	4896	4896	4896
5°	4896	4882	4915
10°	4865	4882	4931
15°	4813	4872	4938
20°	4752	4848	4944
25°	4675	4814	4945
30°	4584	4785	4953
35°	4480	4756	4971
40°	4383	4741	5011
45°	4264	4728	5065
50°	4150	4742	5157
55°	4053	4775	5273
60°	3915	4810	5420
65°	3759	4869	5584
70°	3565	4937	5807
75°	3193	5005	5999
80°	2689	5019	5444
85°	1995	3798	3578



TEST NUMBER: P474674

CATALOG NUMBER: 24CZ2-55HE-SQR-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.4	3.1
10°-20°	494.2	8.9
20°-30°	748.1	13.5
30°-40°	905.0	16.3
40°-50°	955.2	17.2
50°-60°	900.8	16.3
60°-70°	742.7	13.4
70°-80°	487.2	8.8
80°-90°	134.0	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°	1414.7	25.5
0°-40°	2319.6	41.9
0°-60°	4175.7	75.4
0°-90°	5539.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5539.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1820	1820	1820	1820	1820	
5°	1812	1812	1807	1820	1820	172
15°	1728	1737	1749	1769	1773	487
25°	1574	1594	1621	1655	1666	725
35°	1364	1399	1448	1497	1513	854
45°	1120	1171	1242	1309	1331	865
55°	864	925	1018	1094	1124	770
65°	590	661	765	846	877	583
75°	307	386	481	558	577	325
85°	65	112	123	120	116	80
90°	0	0	0	0	0	



TEST NUMBER: P474674

CATALOG NUMBER: 24CZ2-55HE-SQR-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1819.5	1819.5	1819.5	1819.5	1819.5
2.5°	1821.3	1819.5	1811.6	1822.2	1821.3
5°	1812.5	1812.5	1807.2	1819.5	1819.5
7.5°	1800.1	1801.0	1799.2	1813.4	1813.4
10°	1780.6	1784.1	1786.8	1802.7	1804.5
12.5°	1757.6	1763.8	1769.1	1788.6	1790.3
15°	1727.5	1737.2	1748.7	1769.1	1772.6
17.5°	1696.5	1708.0	1720.4	1747.0	1751.4
20°	1659.4	1672.6	1693.0	1719.5	1726.6
22.5°	1617.8	1636.4	1657.6	1689.5	1698.3
25°	1574.4	1593.9	1621.3	1654.9	1665.6
27.5°	1527.5	1550.5	1581.5	1620.4	1631.9
30°	1475.3	1501.8	1539.9	1581.5	1593.9
32.5°	1420.4	1451.4	1493.9	1539.9	1554.1
35°	1363.8	1399.2	1447.9	1497.4	1513.3
37.5°	1308.0	1343.4	1400.9	1453.2	1468.2
40°	1247.8	1286.8	1349.6	1405.4	1426.6
42.5°	1184.1	1230.1	1296.5	1358.5	1378.8
45°	1120.4	1170.8	1242.5	1308.9	1331.0
47.5°	1055.8	1111.6	1190.3	1257.6	1283.2
50°	991.2	1050.5	1132.8	1205.4	1231.9
52.5°	925.7	987.7	1077.0	1154.0	1177.9
55°	863.8	924.8	1017.7	1093.9	1123.9
57.5°	792.1	861.1	959.3	1036.3	1065.5
60°	727.5	794.7	893.8	975.3	1007.1
62.5°	657.6	726.6	831.0	912.4	943.4
65°	590.3	661.1	764.6	846.1	877.0
67.5°	517.7	592.1	698.3	777.0	807.1
70°	453.1	523.0	627.5	708.0	738.1
72.5°	374.4	454.0	554.0	633.7	666.4
75°	307.1	385.9	481.4	557.5	577.0
77.5°	236.3	315.1	409.8	459.3	472.6
80°	173.5	247.8	323.9	350.5	351.3
82.5°	116.8	182.3	225.7	238.9	237.2
85°	64.6	111.5	123.0	119.5	115.9
87.5°	26.5	37.2	30.1	21.2	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)