

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: P474474

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474474
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55HE-HRP-UNV-L840-CD1-U
Description: 2'X4' 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: 4723.6 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

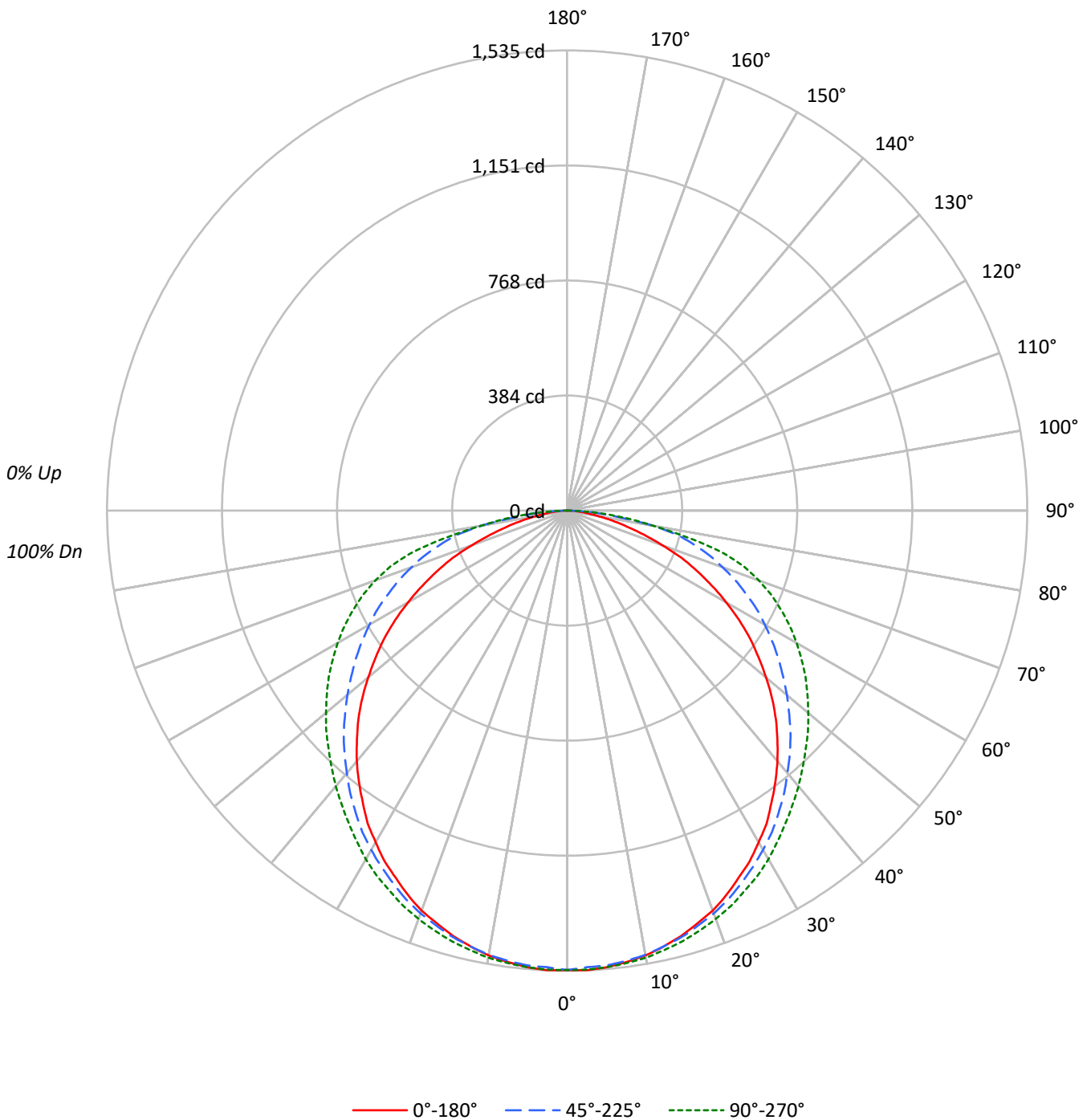
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		60	54	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	38		50	43	38		49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	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	24		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2062	2062	2062
5°	2065	2056	2065
10°	2059	2056	2069
15°	2047	2052	2071
20°	2033	2047	2075
25°	2008	2037	2078
30°	1985	2031	2086
35°	1952	2020	2088
40°	1917	2008	2108
45°	1874	2006	2141
50°	1813	2004	2198
55°	1749	2018	2278
60°	1649	2049	2379
65°	1524	2097	2512
70°	1330	2170	2676
75°	1079	2282	2766
80°	797	2238	2238
85°	611	1649	1862



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.2	3.1
10°-20°	416.9	8.8
20°-30°	634.7	13.4
30°-40°	770.7	16.3
40°-50°	814.2	17.2
50°-60°	768.3	16.3
60°-70°	638.8	13.5
70°-80°	420.3	8.9
80°-90°	114.6	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°	1196.8	25.3
0°-40°	1967.4	41.7
0°-60°	3549.9	75.2
0°-90°	4723.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4723.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1533	1533	1533	1533	1533	
5°	1529	1529	1523	1529	1529	145
15°	1469	1471	1473	1487	1487	414
25°	1352	1360	1372	1396	1400	624
35°	1188	1202	1230	1262	1272	744
45°	985	1005	1054	1105	1125	758
55°	746	777	860	941	971	664
65°	479	534	659	755	789	473
75°	208	303	439	520	532	224
85°	40	87	107	119	121	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1532.6	1532.6	1532.6	1532.6	1532.6
2.5°	1534.6	1532.6	1524.6	1532.6	1532.6
5°	1528.7	1528.7	1522.6	1528.7	1528.7
7.5°	1518.8	1518.8	1514.7	1522.6	1522.6
10°	1506.8	1506.8	1504.9	1514.7	1514.7
12.5°	1489.1	1490.9	1489.1	1500.9	1500.9
15°	1469.2	1471.3	1473.3	1487.1	1487.1
17.5°	1443.7	1447.5	1451.6	1467.2	1469.2
20°	1419.9	1421.7	1429.7	1447.5	1449.5
22.5°	1388.2	1394.1	1404.1	1421.7	1427.8
25°	1352.5	1360.4	1372.4	1396.2	1400.0
27.5°	1319.0	1324.9	1340.8	1366.5	1374.4
30°	1277.4	1287.4	1307.1	1332.8	1342.8
32.5°	1237.9	1247.8	1271.5	1299.1	1307.1
35°	1188.5	1202.3	1229.9	1261.6	1271.5
37.5°	1141.0	1154.8	1188.5	1224.1	1236.0
40°	1091.5	1107.4	1143.1	1184.5	1200.3
42.5°	1038.1	1059.9	1099.4	1144.9	1162.8
45°	984.8	1004.7	1054.0	1105.3	1125.2
47.5°	927.5	951.3	1004.7	1065.9	1089.7
50°	866.2	895.9	957.2	1024.3	1050.1
52.5°	804.9	838.4	907.6	982.7	1010.5
55°	745.5	777.1	860.1	941.3	971.0
57.5°	680.3	719.9	810.8	897.7	927.5
60°	612.9	656.6	761.3	852.2	883.9
62.5°	545.8	595.3	713.8	804.9	838.4
65°	478.6	534.0	658.6	755.4	789.1
67.5°	413.2	474.5	607.1	704.1	737.6
70°	338.1	415.3	551.6	646.6	680.3
72.5°	268.9	358.0	498.3	587.4	617.0
75°	207.6	302.6	439.0	520.0	532.0
77.5°	152.2	247.2	377.7	405.3	407.3
80°	102.9	197.7	288.8	284.8	288.8
82.5°	67.2	148.4	181.9	203.8	205.6
85°	39.6	87.1	106.8	118.7	120.6
87.5°	19.7	29.6	37.5	39.6	43.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)