

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: P293058

Luminaire Tested: **24GR-LD5-48-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293058
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-F1-UNV-L93050-W2A1-U-4500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4529.0 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

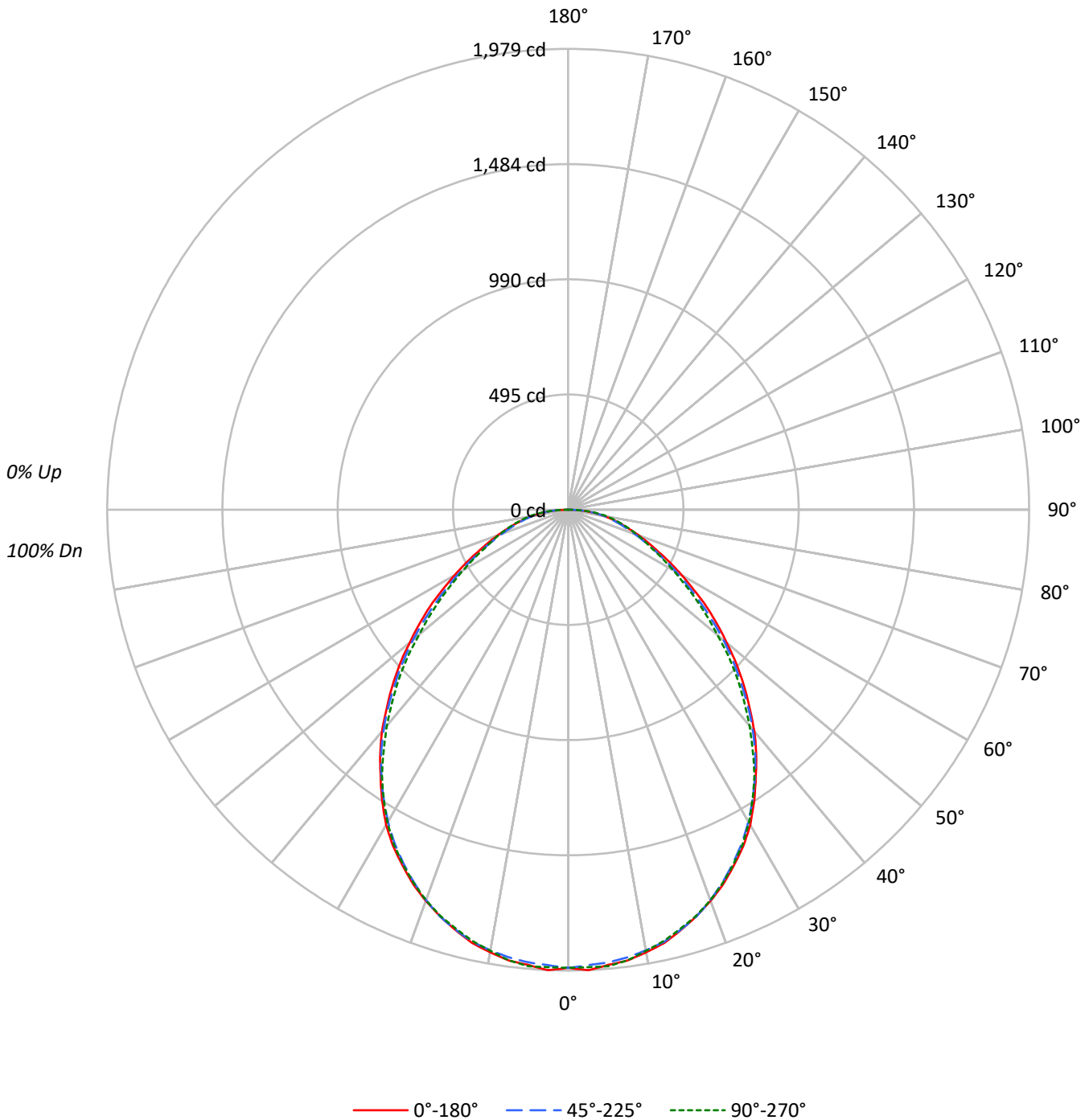
Input Watts (W): 34.207818
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72					72			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31					31			
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2647	2647	2647
5°	2651	2636	2658
10°	2637	2625	2628
15°	2604	2601	2595
20°	2560	2555	2555
25°	2500	2487	2492
30°	2428	2403	2411
35°	2306	2295	2289
40°	2184	2164	2126
45°	2030	1994	1955
50°	1860	1818	1750
55°	1698	1622	1567
60°	1513	1440	1403
65°	1362	1291	1273
70°	1264	1187	1235
75°	1209	1156	1253
80°	1209	1209	1339
85°	1255	1269	1413



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.8	4.1
10°-20°	525.8	11.6
20°-30°	771.6	17.0
30°-40°	872.4	19.3
40°-50°	806.3	17.8
50°-60°	621.2	13.7
60°-70°	411.3	9.1
70°-80°	244.9	5.4
80°-90°	89.7	2.0
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°	1483.2	32.7
0°-40°	2355.6	52.0
0°-60°	3783.1	83.5
0°-90°	4529.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4529.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1967	1967	1967	1967	1967	
5°	1963	1963	1951	1952	1968	187
15°	1869	1866	1867	1866	1863	527
25°	1684	1680	1675	1673	1679	776
35°	1404	1402	1398	1391	1394	879
45°	1067	1059	1048	1029	1028	822
55°	724	709	691	673	668	646
65°	428	421	405	402	400	429
75°	233	227	222	233	241	248
85°	81	77	82	91	92	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1967.3	1967.3	1967.3	1967.3	1967.3
2.5°	1979.4	1969.2	1957.9	1957.9	1966.4
5°	1962.6	1962.6	1951.4	1952.3	1968.2
7.5°	1952.3	1946.7	1939.3	1939.3	1951.4
10°	1929.9	1925.3	1921.5	1919.6	1923.4
12.5°	1905.6	1898.2	1901.0	1898.2	1897.2
15°	1869.2	1865.5	1867.3	1866.4	1862.7
17.5°	1830.0	1828.1	1831.8	1825.3	1828.1
20°	1787.9	1782.3	1784.2	1780.5	1784.2
22.5°	1740.3	1736.6	1731.9	1727.2	1734.7
25°	1684.2	1679.6	1674.9	1673.0	1678.6
27.5°	1628.2	1620.7	1614.2	1612.3	1620.7
30°	1562.8	1554.4	1546.9	1545.1	1551.6
32.5°	1485.3	1483.4	1474.1	1470.3	1473.1
35°	1404.0	1402.1	1397.5	1390.9	1393.7
37.5°	1326.5	1325.5	1319.0	1307.8	1300.3
40°	1243.3	1236.8	1232.1	1216.2	1210.6
42.5°	1151.8	1149.9	1141.5	1123.8	1117.2
45°	1066.8	1059.3	1048.1	1029.4	1027.5
47.5°	979.0	968.7	958.4	935.1	934.1
50°	888.4	880.9	868.7	845.4	836.1
52.5°	804.3	794.0	777.2	754.8	750.1
55°	724.0	709.0	691.3	672.6	667.9
57.5°	638.0	631.5	610.0	595.0	589.4
60°	562.3	556.7	535.3	521.2	521.2
62.5°	494.2	485.8	467.1	457.7	457.7
65°	427.8	421.3	405.4	401.7	399.8
67.5°	370.9	362.4	351.2	350.3	355.0
70°	321.3	311.1	301.7	311.1	313.9
72.5°	274.6	268.1	259.7	271.8	277.4
75°	232.6	227.0	222.3	232.6	241.0
77.5°	194.3	188.7	188.7	199.9	207.4
80°	156.0	152.3	156.0	165.3	172.8
82.5°	119.6	116.8	121.4	130.8	135.4
85°	81.3	76.6	82.2	90.6	91.5
87.5°	38.3	37.4	41.1	46.7	45.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)