

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: P294050

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-34-A19/156-UNV-L93050-W2A1-U-4000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3119.0 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

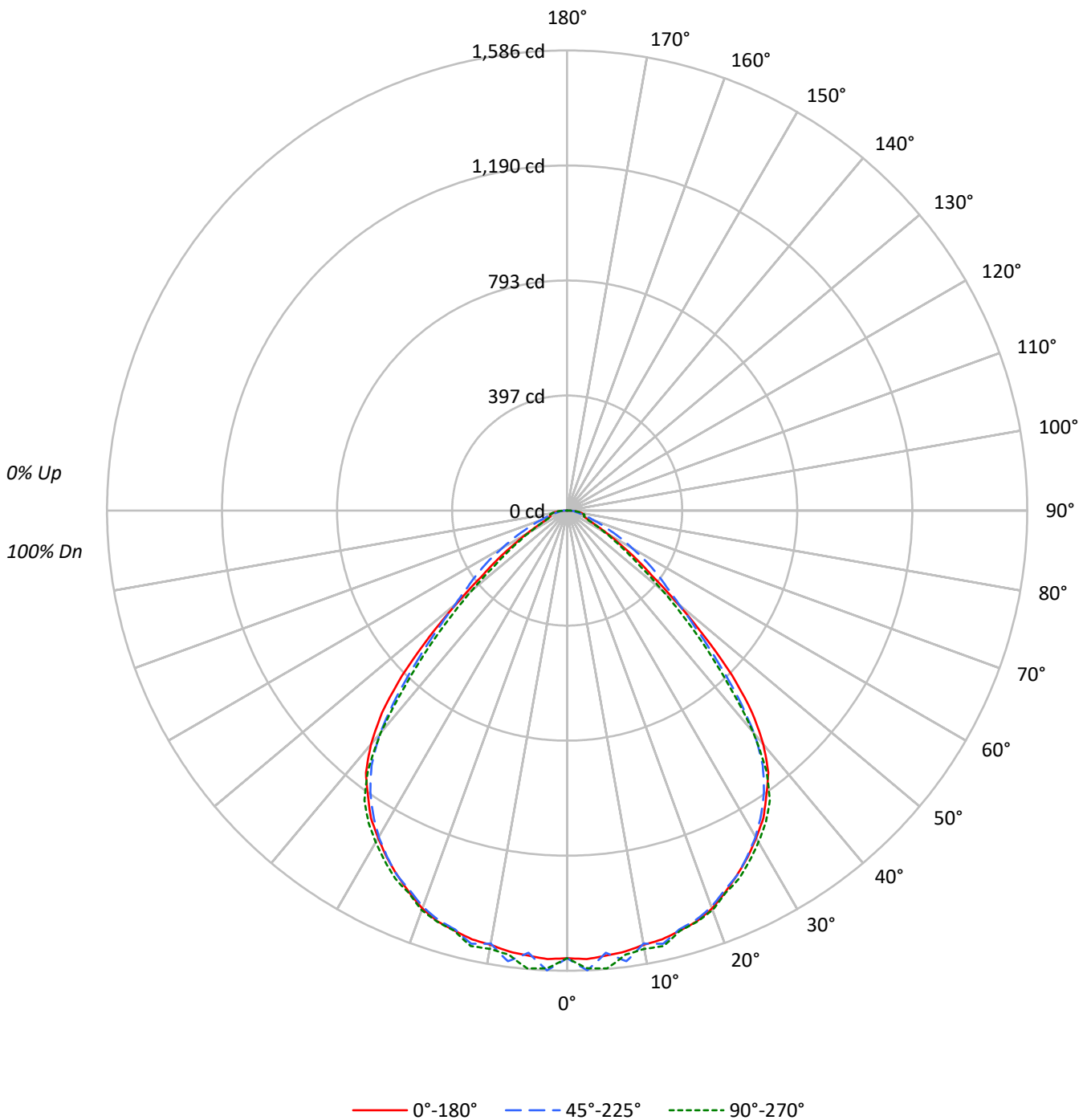
Input Watts (W): 23.568246
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2075	2075	2075
5°	2080	2066	2139
10°	2076	2070	2095
15°	2088	2081	2090
20°	2090	2081	2099
25°	2058	2059	2079
30°	2023	2017	2050
35°	1966	1942	2001
40°	1847	1764	1754
45°	1531	1385	1313
50°	1030	1051	898
55°	679	881	589
60°	435	696	403
65°	281	531	273
70°	248	380	248
75°	320	302	323
80°	392	260	411
85°	457	386	480



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.7	4.7
10°-20°	424.0	13.6
20°-30°	638.3	20.5
30°-40°	739.9	23.7
40°-50°	578.0	18.5
50°-60°	308.6	9.9
60°-70°	158.7	5.1
70°-80°	89.8	2.9
80°-90°	34.1	1.1
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°	1210.0	38.8
0°-40°	1949.9	62.5
0°-60°	2836.4	90.9
0°-90°	3119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3119.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1542	1542	1542	1542	1542	
5°	1540	1583	1530	1572	1584	146
15°	1499	1509	1494	1504	1500	423
25°	1386	1382	1387	1385	1400	639
35°	1197	1192	1183	1206	1218	746
45°	804	805	728	721	690	606
55°	290	366	376	339	251	267
65°	88	184	167	183	86	97
75°	62	116	58	108	62	62
85°	30	39	25	39	31	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1542.3	1542.3	1542.3	1542.3	1542.3
2.5°	1547.3	1575.3	1586.3	1572.8	1578.8
5°	1539.8	1582.8	1529.7	1571.8	1583.8
7.5°	1532.7	1528.2	1566.8	1526.7	1543.8
10°	1519.7	1522.7	1515.2	1543.8	1533.7
12.5°	1513.7	1531.2	1529.7	1515.2	1537.2
15°	1499.2	1508.7	1494.2	1503.7	1500.2
17.5°	1484.7	1480.1	1478.6	1482.6	1486.2
20°	1459.6	1444.6	1453.6	1454.6	1465.6
22.5°	1423.5	1414.5	1416.5	1425.5	1426.5
25°	1386.0	1381.5	1387.0	1385.0	1400.5
27.5°	1346.9	1340.9	1344.4	1351.9	1361.4
30°	1302.3	1300.8	1298.3	1304.8	1319.4
32.5°	1258.2	1246.2	1244.2	1257.7	1274.3
35°	1197.1	1191.6	1182.6	1206.2	1218.2
37.5°	1139.0	1122.0	1107.5	1121.5	1126.5
40°	1051.4	1038.4	1004.3	1005.8	998.8
42.5°	943.7	934.2	869.1	857.5	838.0
45°	804.4	804.9	727.8	721.3	690.2
47.5°	642.6	671.2	604.1	596.6	550.5
50°	491.9	543.5	501.9	489.9	428.8
52.5°	369.2	444.8	431.8	405.7	321.6
55°	289.5	366.2	375.7	338.6	250.9
57.5°	217.9	301.5	317.1	286.5	193.8
60°	161.8	254.0	258.5	246.4	149.8
62.5°	120.2	215.9	209.9	211.4	111.2
65°	88.2	183.8	166.8	183.3	85.7
67.5°	72.1	159.3	129.7	158.8	69.6
70°	63.1	141.3	96.7	139.7	63.1
72.5°	61.1	129.7	76.6	124.2	61.6
75°	61.6	115.7	58.1	108.2	62.1
77.5°	56.6	95.2	44.1	92.2	59.1
80°	50.6	72.1	33.6	73.1	53.1
82.5°	43.1	52.6	27.0	54.1	44.6
85°	29.6	38.6	25.0	38.6	31.1
87.5°	14.0	23.0	15.5	22.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)