

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: NEO-RAY

Report Number: P231698

Luminaire Tested: **S124-DR-2-40-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231698
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29680)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DR-2-40-X-0048-1-U-DD-1-W
Description: DEFINE 4 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4215.0 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.13 / 1.27
Luminous Opening: Rectangular (W 0.31' x L: 3.92' x H: 0')
CIE Type: Direct

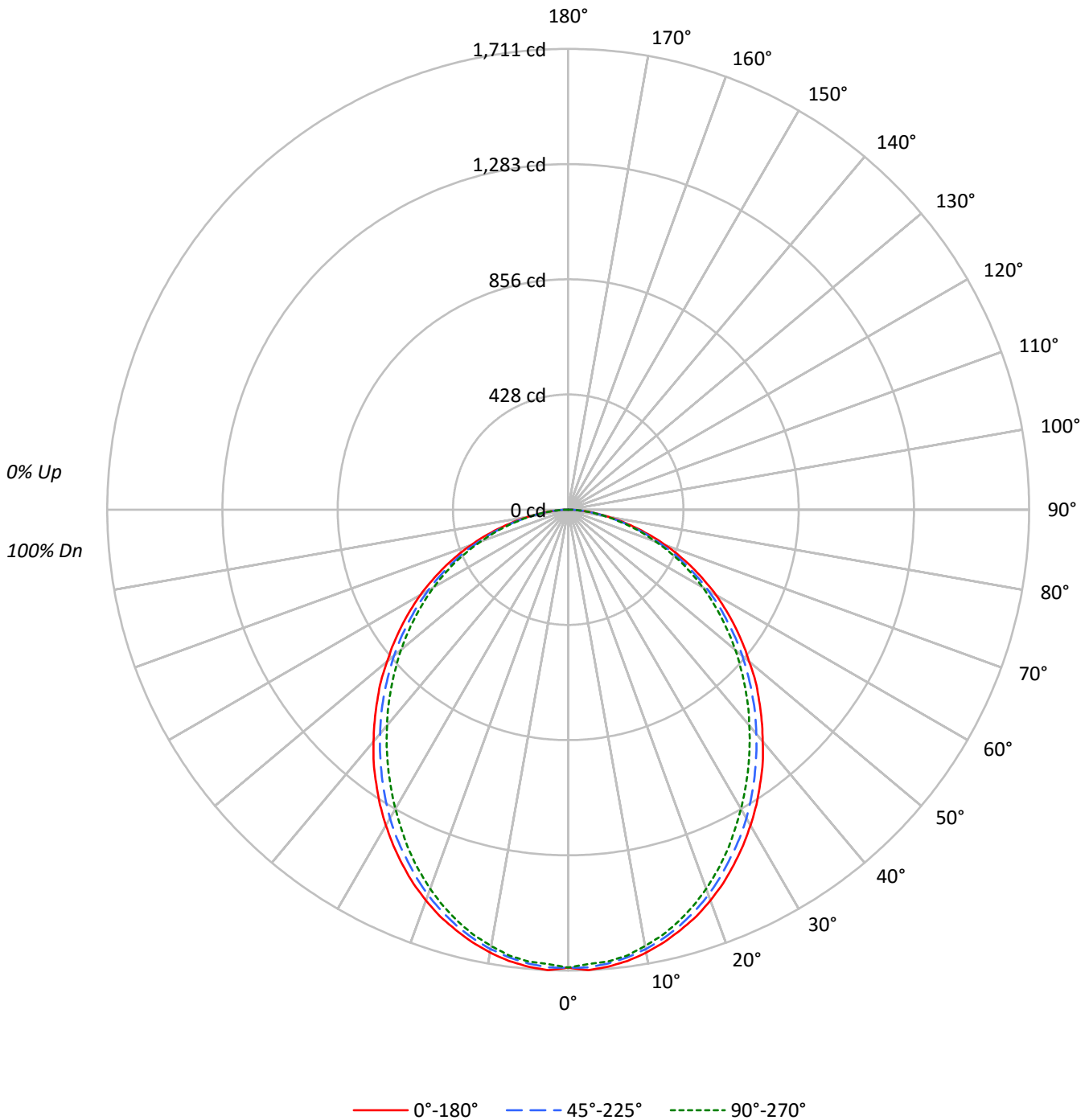
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	97	106	102	98	95	98	95	92	94	92	89	90	88	87	84
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	28
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15232	15232	15232
5°	15316	15212	15147
10°	15191	15073	14968
15°	14979	14832	14684
20°	14722	14515	14282
25°	14380	14094	13808
30°	14002	13688	13270
35°	13587	13192	12749
40°	13143	12704	12231
45°	12701	12226	11750
50°	12221	11757	11294
55°	11800	11259	10808
60°	11362	10767	10328
65°	10779	10196	9800
70°	10066	9384	9005
75°	9050	8499	8250
80°	7751	7379	7302
85°	6529	6241	6086



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.1	3.8
10°-20°	449.0	10.7
20°-30°	654.3	15.5
30°-40°	751.3	17.8
40°-50°	743.0	17.6
50°-60°	645.6	15.3
60°-70°	477.3	11.3
70°-80°	263.0	6.2
80°-90°	71.5	1.7
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°	1263.4	30.0
0°-40°	2014.7	47.8
0°-60°	3403.3	80.7
0°-90°	4215.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4215.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1703	1684	1691	1685	1684	161
15°	1615	1596	1599	1586	1583	455
25°	1454	1434	1426	1400	1397	670
35°	1242	1222	1206	1173	1166	777
45°	1002	986	965	936	927	774
55°	755	744	721	698	692	676
65°	508	500	481	465	462	503
75°	261	253	246	240	238	278
85°	64	62	61	61	59	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1699.9	1699.9	1699.9	1699.9	1699.9
2.5°	1711.4	1694.1	1701.3	1697.0	1688.3
5°	1702.8	1684.0	1691.2	1685.4	1684.0
7.5°	1689.8	1671.0	1676.8	1669.6	1669.6
10°	1669.6	1650.8	1656.6	1646.5	1645.0
12.5°	1645.0	1624.8	1630.6	1617.6	1617.6
15°	1614.7	1595.9	1598.8	1585.8	1582.9
17.5°	1582.9	1561.2	1562.7	1546.8	1542.5
20°	1543.9	1522.2	1522.2	1500.6	1497.7
22.5°	1502.0	1480.4	1476.0	1451.5	1448.6
25°	1454.4	1434.1	1425.5	1399.5	1396.6
27.5°	1405.3	1385.0	1376.4	1346.0	1338.8
30°	1353.3	1331.6	1322.9	1288.3	1282.5
32.5°	1299.8	1278.2	1265.2	1231.9	1224.7
35°	1242.1	1221.8	1206.0	1172.7	1165.5
37.5°	1185.7	1165.5	1146.7	1113.5	1106.3
40°	1123.6	1104.9	1086.1	1052.9	1045.6
42.5°	1063.0	1047.1	1026.9	995.1	987.9
45°	1002.3	986.4	964.8	935.9	927.2
47.5°	943.1	925.8	904.1	873.8	868.0
50°	876.7	865.1	843.4	816.0	810.2
52.5°	817.4	803.0	782.8	756.8	751.0
55°	755.3	743.8	720.7	697.6	691.8
57.5°	694.7	683.1	661.5	639.8	634.0
60°	634.0	621.0	600.8	582.0	576.3
62.5°	570.5	560.4	540.2	522.8	518.5
65°	508.4	499.7	480.9	465.1	462.2
67.5°	446.3	436.2	421.7	408.7	402.9
70°	384.2	375.5	358.2	348.1	343.7
72.5°	322.1	312.0	301.8	294.6	291.7
75°	261.4	252.7	245.5	239.7	238.3
77.5°	205.1	197.9	192.1	189.2	187.8
80°	150.2	147.3	143.0	141.5	141.5
82.5°	102.5	101.1	99.7	98.2	98.2
85°	63.5	62.1	60.7	60.7	59.2
87.5°	30.3	28.9	30.3	28.9	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)