

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: P231751

Luminaire Tested: **S124-RDR-1-27-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231751
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33917)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-RDR-1-27-X-0048-1-U-DD-1-W
Description: DEFINE 4 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2215.2 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.92' x H: 0')
CIE Type: Direct

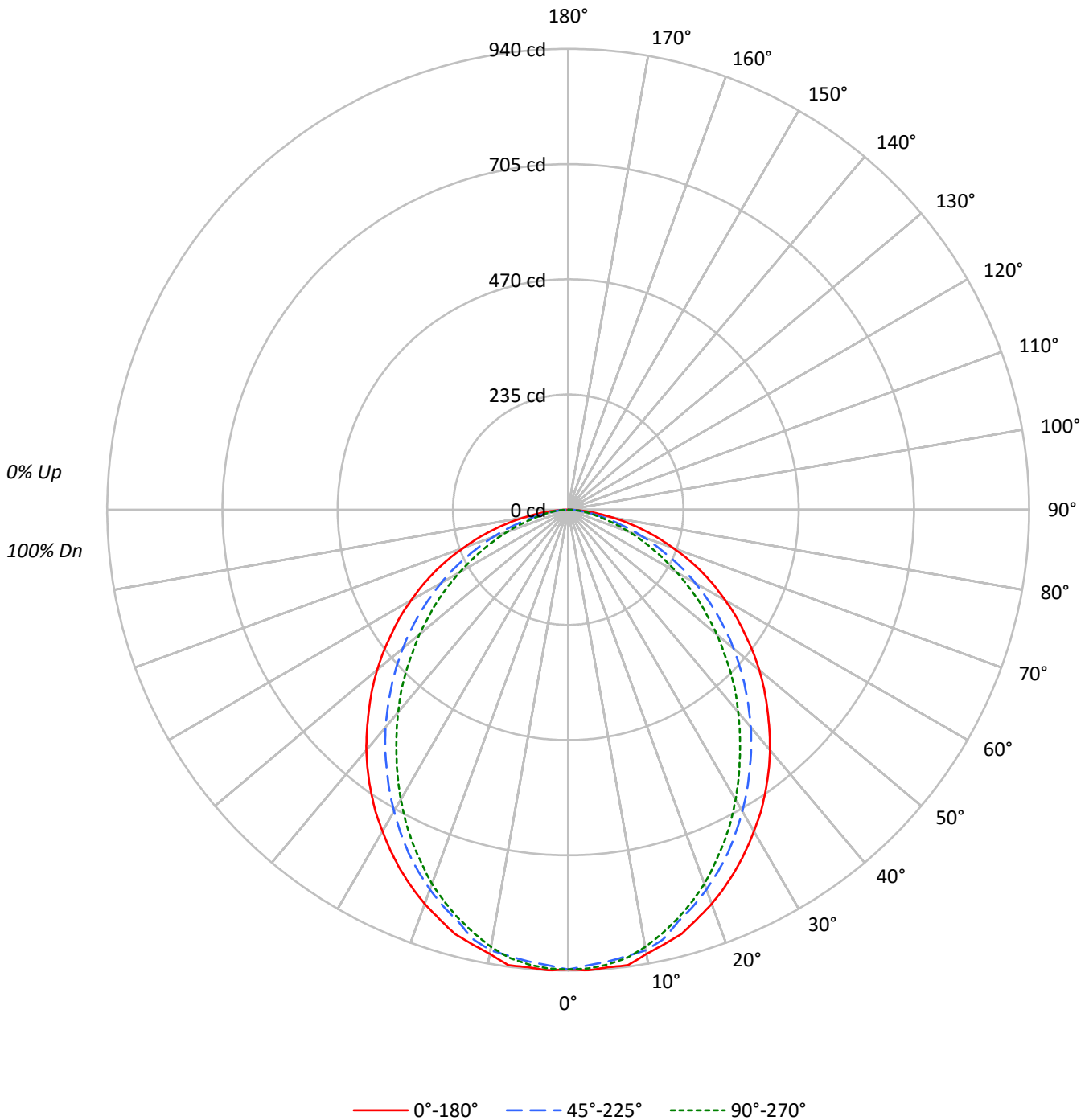
Input Watts (W): 27.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	85	79	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	35	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8403	8403	8403
5°	8427	8321	8374
10°	8371	8301	8240
15°	8306	8062	8008
20°	8158	7859	7746
25°	8005	7629	7419
30°	7835	7351	7063
35°	7670	7059	6678
40°	7489	6774	6308
45°	7274	6458	5931
50°	7091	6135	5520
55°	6849	5776	5087
60°	6625	5364	4573
65°	6382	4836	4045
70°	5952	4265	3466
75°	5460	3521	2759
80°	4727	2714	2451
85°	3835	2354	2180



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	4.0
10°-20°	247.0	11.1
20°-30°	357.7	16.1
30°-40°	407.3	18.4
40°-50°	397.5	17.9
50°-60°	335.6	15.1
60°-70°	234.6	10.6
70°-80°	118.0	5.3
80°-90°	29.2	1.3
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°	693.1	31.3
0°-40°	1100.4	49.7
0°-60°	1833.4	82.8
0°-90°	2215.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2215.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	937	934	925	933	931	89
15°	895	889	869	869	863	252
25°	810	798	772	759	750	373
35°	701	681	645	622	610	439
45°	574	552	510	479	468	443
55°	438	413	370	337	326	393
65°	301	271	228	201	191	297
75°	158	133	102	85	80	167
85°	37	25	23	22	21	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	937.8	937.8	937.8	937.8	937.8
2.5°	940.3	938.6	930.2	938.6	936.9
5°	936.9	933.5	925.1	932.7	931.0
7.5°	936.9	932.7	918.3	923.4	921.7
10°	920.0	922.5	912.3	907.3	905.6
12.5°	907.3	903.0	897.1	889.5	885.2
15°	895.4	888.6	869.1	869.1	863.2
17.5°	875.0	870.0	847.9	847.9	838.6
20°	855.5	847.9	824.2	824.2	812.3
22.5°	833.5	825.0	798.7	796.2	780.9
25°	809.7	797.9	771.6	758.9	750.4
27.5°	784.3	769.9	741.1	725.0	717.3
30°	757.2	741.9	710.5	691.0	682.6
32.5°	730.9	713.1	678.3	657.1	647.0
35°	701.2	680.9	645.3	621.5	610.5
37.5°	671.5	651.2	613.0	585.9	574.9
40°	640.2	617.3	579.1	551.1	539.3
42.5°	607.1	584.2	544.4	514.7	504.5
45°	574.0	552.0	509.6	479.1	468.0
47.5°	541.8	517.2	474.8	442.6	429.9
50°	508.7	483.3	440.1	407.8	396.0
52.5°	474.0	448.5	405.3	372.2	358.7
55°	438.4	412.9	369.7	336.6	325.6
57.5°	406.1	377.3	334.1	301.9	290.0
60°	369.7	340.9	299.3	267.1	255.2
62.5°	335.8	306.1	265.4	234.0	222.2
65°	301.0	271.3	228.1	201.0	190.8
67.5°	264.5	236.6	195.0	169.6	160.3
70°	227.2	200.1	162.8	139.9	132.3
72.5°	192.5	166.2	131.4	111.1	106.0
75°	157.7	133.1	101.7	84.8	79.7
77.5°	123.8	101.7	75.5	62.7	61.0
80°	91.6	72.9	52.6	47.5	47.5
82.5°	62.7	45.8	36.5	34.8	34.8
85°	37.3	24.6	22.9	22.0	21.2
87.5°	16.1	11.0	10.2	9.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)