

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060408

Luminaire Tested: S124RDR-S350D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060408
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S350D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

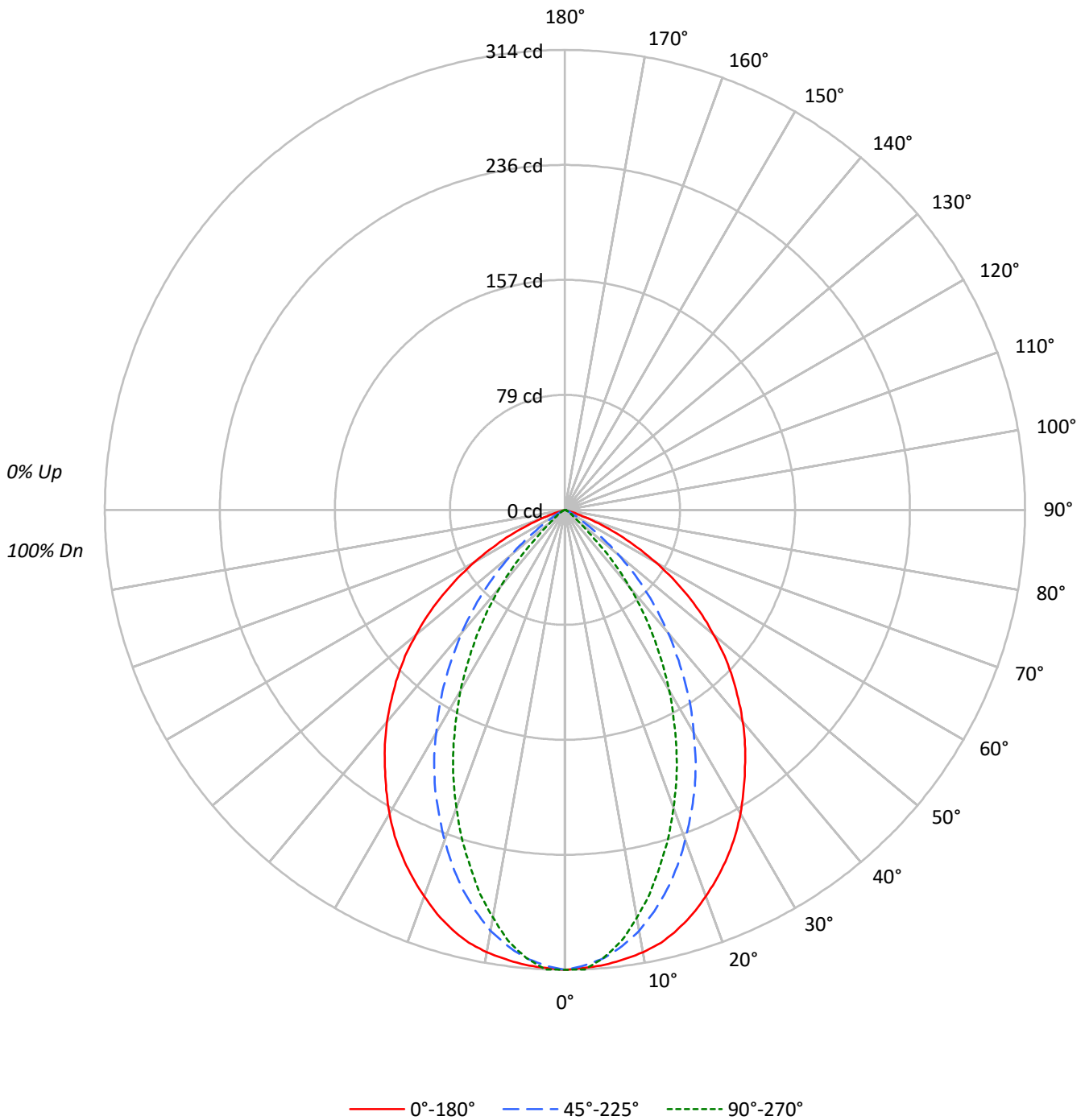
Lumens per Lamp: N/A
Luminaire Lumens: 410.1 lumens
Efficiency: N/A
Efficacy: 32.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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: 24 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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91				
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46				
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42				
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2704	2704	2704
5°	2695	2655	2652
10°	2683	2551	2472
15°	2646	2395	2238
20°	2574	2200	1984
25°	2488	1992	1712
30°	2382	1746	1417
35°	2252	1498	1102
40°	2122	1230	770
45°	1968	945	381
50°	1775	639	127
55°	1533	327	89
60°	1226	117	62
65°	842	65	29
70°	378	35	23
75°	0	17	17
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1968 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	7.1
10°-20°	76.0	18.5
20°-30°	98.4	24.0
30°-40°	93.5	22.8
40°-50°	66.2	16.1
50°-60°	34.0	8.3
60°-70°	11.9	2.9
70°-80°	1.0	0.3
80°-90°	0.0	0.0
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°	203.4	49.6
0°-40°	296.9	72.4
0°-60°	397.1	96.8
0°-90°	410.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	410.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	314	314	314	314	314	
5°	312	312	307	307	307	30
15°	297	288	269	256	251	83
25°	262	241	210	187	180	120
35°	214	183	142	115	105	134
45°	162	124	78	44	31	124
55°	102	67	22	6	6	91
65°	41	20	3	2	1	41
75°	0	0	0	0	0	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	314.0	314.0	314.0	314.0	314.0
2.5°	313.1	314.0	311.3	313.6	314.0
5°	311.8	312.2	307.2	307.2	306.8
7.5°	309.5	308.6	300.4	297.2	296.8
10°	306.8	303.6	291.8	285.0	282.7
12.5°	302.7	296.8	280.9	270.9	268.2
15°	296.8	287.7	268.7	256.0	251.0
17.5°	289.5	277.7	255.0	239.6	234.6
20°	280.9	265.9	240.1	222.8	216.5
22.5°	271.8	254.6	224.6	205.1	198.8
25°	261.9	241.4	209.7	187.4	180.2
27.5°	251.4	227.4	193.3	170.2	160.7
30°	239.6	213.3	175.6	151.6	142.5
32.5°	226.9	197.9	159.7	133.9	123.0
35°	214.2	182.9	142.5	114.8	104.8
37.5°	201.9	168.8	125.3	96.2	86.7
40°	188.8	153.4	109.4	79.4	68.5
42.5°	175.2	138.4	93.0	62.2	50.4
45°	161.6	124.3	77.6	44.5	31.3
47.5°	147.9	109.4	62.6	28.1	16.8
50°	132.5	94.8	47.7	15.0	9.5
52.5°	118.0	81.2	34.0	8.6	7.3
55°	102.1	67.2	21.8	6.4	5.9
57.5°	87.1	53.6	12.3	5.0	4.5
60°	71.2	41.3	6.8	4.1	3.6
62.5°	55.4	30.0	4.5	2.7	2.3
65°	41.3	20.0	3.2	1.8	1.4
67.5°	27.2	11.3	2.3	0.9	0.9
70°	15.0	5.4	1.4	0.9	0.9
72.5°	5.4	1.8	0.9	0.5	0.5
75°	0.0	0.5	0.5	0.5	0.5
77.5°	0.0	0.0	0.0	0.0	0.5
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)