

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: P1059199

Luminaire Tested: S123RDR-S340D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059199
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S340D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

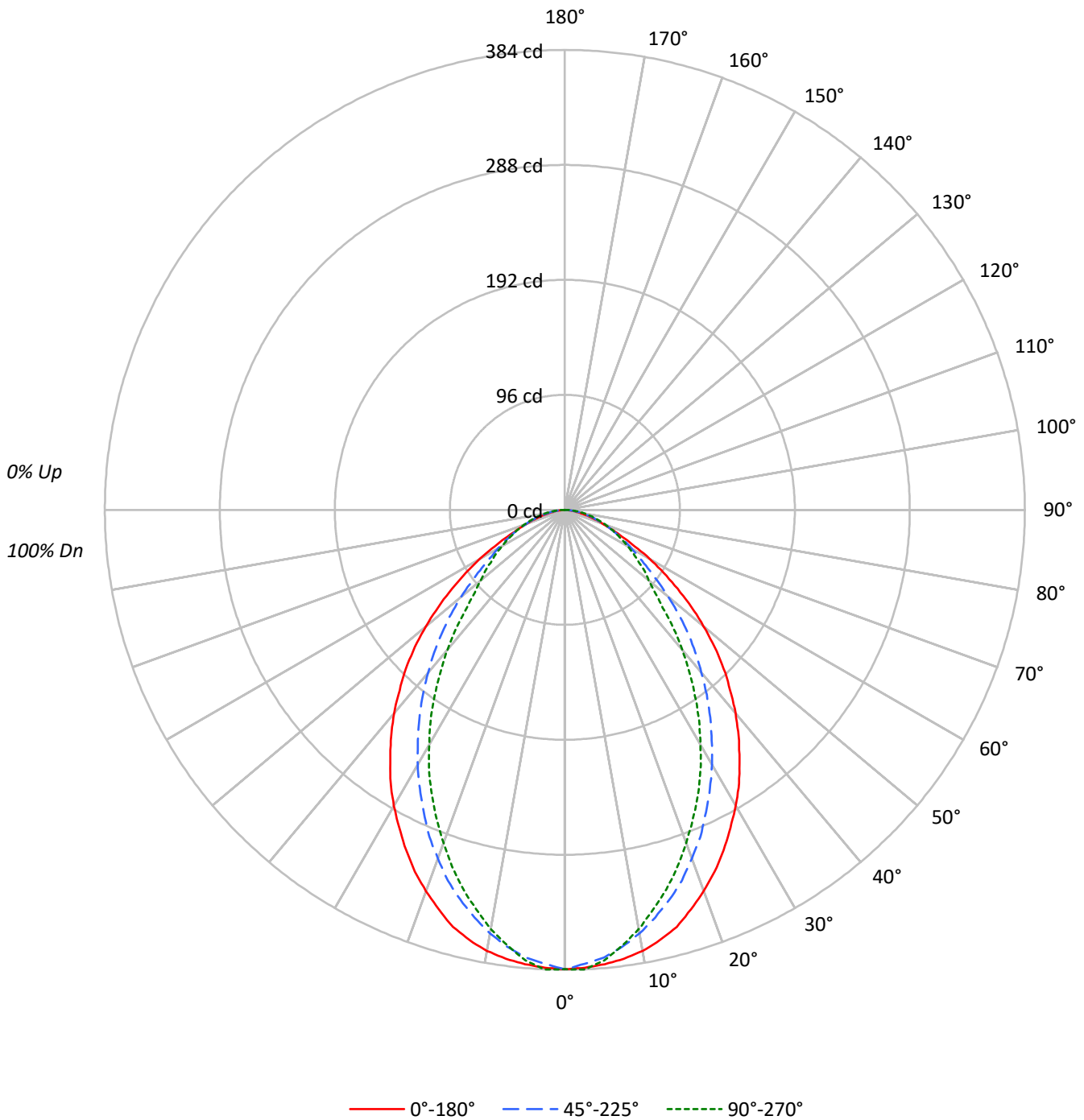
Lumens per Lamp: N/A
Luminaire Lumens: 670.9 lumens
Efficiency: N/A
Efficacy: 53.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4504	4504	4504
5°	4489	4424	4451
10°	4458	4282	4238
15°	4382	4097	3985
20°	4234	3871	3699
25°	4062	3608	3405
30°	3870	3331	3070
35°	3641	3033	2716
40°	3398	2721	2339
45°	3115	2405	1921
50°	2762	2062	1668
55°	2350	1728	1529
60°	1916	1505	1418
65°	1461	1331	1320
70°	1140	1188	1236
75°	921	1066	1152
80°	683	872	1062
85°	377	552	930

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3115 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	5.3
10°-20°	95.8	14.3
20°-30°	130.2	19.4
30°-40°	135.0	20.1
40°-50°	113.9	17.0
50°-60°	80.8	12.0
60°-70°	49.4	7.4
70°-80°	24.6	3.7
80°-90°	5.6	0.8
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°	261.6	39.0
0°-40°	396.6	59.1
0°-60°	591.3	88.1
0°-90°	670.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	670.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	384	384	384	384	384	
5°	381	381	375	378	378	36
15°	360	354	337	331	328	101
25°	314	300	278	268	263	144
35°	254	235	212	197	190	159
45°	188	168	145	125	116	144
55°	115	103	84	77	75	103
65°	53	51	48	48	48	54
75°	20	22	24	24	25	22
85°	3	3	4	6	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	383.6	383.6	383.6	383.6	383.6
2.5°	382.6	383.1	379.4	383.6	384.0
5°	380.8	380.8	375.3	377.6	377.6
7.5°	378.0	377.1	367.9	367.9	367.0
10°	373.9	371.1	359.1	356.8	355.4
12.5°	367.9	363.3	348.5	344.4	341.6
15°	360.5	353.6	337.0	331.0	327.8
17.5°	349.9	343.0	324.6	316.3	312.6
20°	338.8	328.7	309.8	301.5	296.0
22.5°	326.9	313.9	295.5	285.4	279.4
25°	313.5	299.7	278.5	268.3	262.8
27.5°	299.2	284.0	262.3	250.8	245.3
30°	285.4	267.8	245.7	232.8	226.4
32.5°	270.6	250.8	228.2	214.8	208.4
35°	254.0	234.7	211.6	196.9	189.5
37.5°	238.3	218.5	194.5	178.9	170.6
40°	221.7	201.9	177.5	161.4	152.6
42.5°	204.2	185.3	161.4	142.5	134.2
45°	187.6	167.8	144.8	124.9	115.7
47.5°	169.7	151.2	128.6	108.3	101.9
50°	151.2	134.2	112.9	94.5	91.3
52.5°	133.2	118.9	97.3	85.3	83.9
55°	114.8	102.8	84.4	77.0	74.7
57.5°	97.7	89.0	72.4	68.7	67.8
60°	81.6	74.2	64.1	61.8	60.4
62.5°	65.9	61.8	55.8	54.9	53.9
65°	52.6	50.7	47.9	47.9	47.5
67.5°	41.5	41.5	41.0	42.0	41.5
70°	33.2	33.7	34.6	35.5	36.0
72.5°	26.3	27.7	28.6	30.0	30.4
75°	20.3	21.7	23.5	24.4	25.4
77.5°	14.8	16.1	18.0	19.4	20.3
80°	10.1	11.1	12.9	14.8	15.7
82.5°	6.5	6.9	8.3	10.1	11.1
85°	2.8	3.2	4.1	6.0	6.9
87.5°	0.0	0.0	0.5	1.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)