

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: P1059195

Luminaire Tested: S123RDR-S340D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059195
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S340D850-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

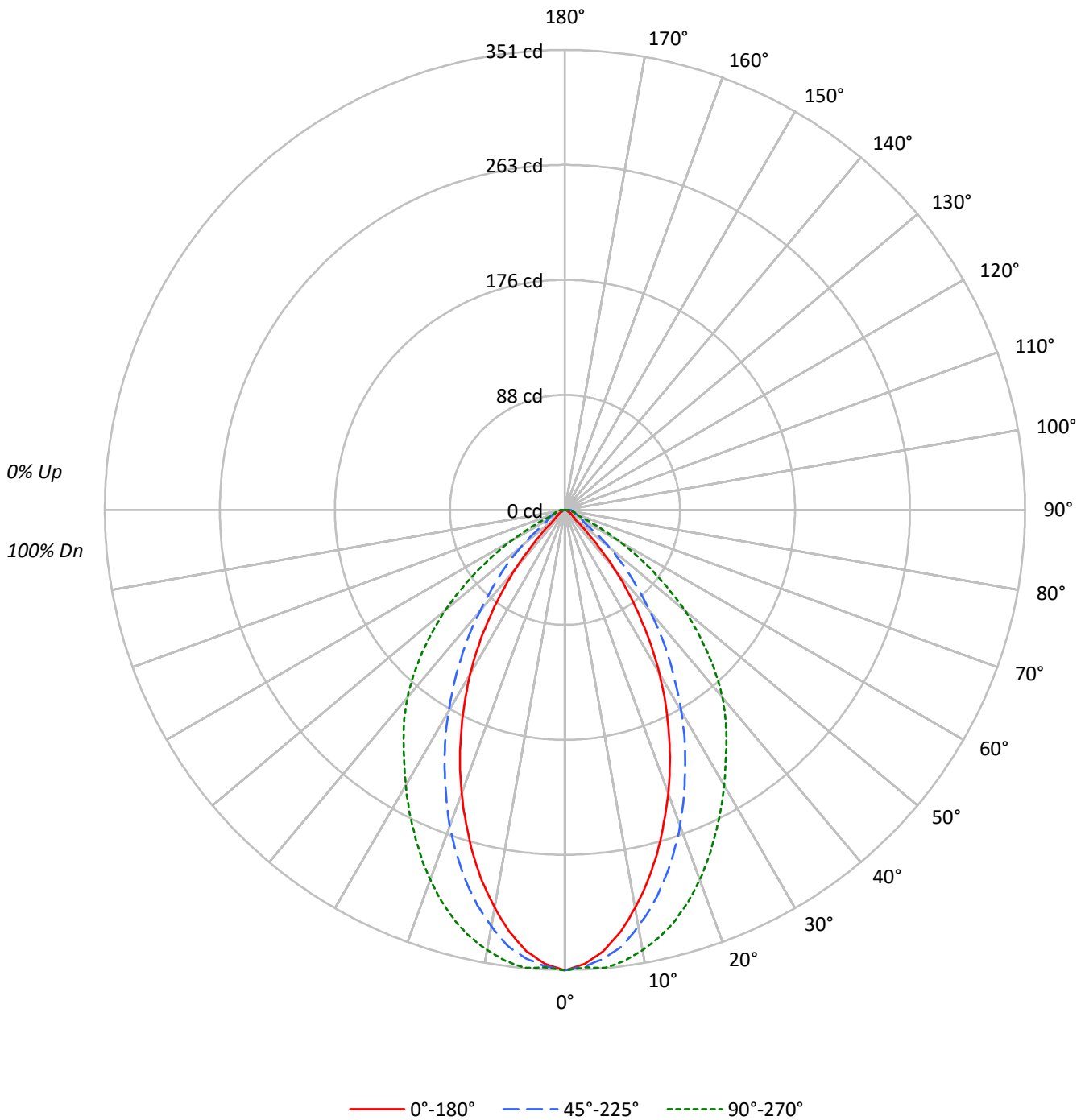
Lumens per Lamp: N/A
Luminaire Lumens: 421.8 lumens
Efficiency: N/A
Efficacy: 33.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81				81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4126	4126	4126
5°	3984	4049	4136
10°	3677	3848	4068
15°	3301	3558	3946
20°	2879	3208	3756
25°	2429	2812	3524
30°	1954	2404	3293
35°	1429	1980	3078
40°	892	1544	2866
45°	337	1151	2554
50°	161	793	2176
55°	123	434	1683
60°	87	369	1106
65°	64	320	461
70°	62	302	302
75°	82	313	313
80°	122	372	345
85°	243	620	498

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2554 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.3	7.6
10°-20°	82.7	19.6
20°-30°	102.4	24.3
30°-40°	91.8	21.8
40°-50°	60.2	14.3
50°-60°	30.1	7.1
60°-70°	11.7	2.8
70°-80°	6.6	1.6
80°-90°	4.1	1.0
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°	217.3	51.5
0°-40°	309.1	73.3
0°-60°	399.4	94.7
0°-90°	421.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	421.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	351	351	351	351	351	
5°	338	344	344	347	351	31
15°	272	283	293	312	325	76
25°	188	199	217	248	272	86
35°	100	113	138	180	215	62
45°	20	33	69	119	154	19
55°	6	7	21	58	82	6
65°	2	7	12	15	17	2
75°	2	7	7	7	7	2
85°	2	5	5	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	351.4	351.4	351.4	351.4	351.4
2.5°	346.8	351.8	348.6	349.1	349.5
5°	338.0	343.5	343.5	347.2	350.9
7.5°	324.6	331.1	335.7	342.1	347.2
10°	308.4	316.3	322.7	334.3	341.2
12.5°	290.9	300.6	308.9	324.1	333.8
15°	271.5	282.6	292.7	312.1	324.6
17.5°	250.7	261.8	275.2	297.8	313.1
20°	230.4	241.5	256.7	282.1	300.6
22.5°	209.2	220.7	236.9	265.0	286.7
25°	187.5	199.0	217.0	247.9	272.0
27.5°	165.8	177.3	197.6	231.3	257.6
30°	144.1	155.6	177.3	213.3	242.9
32.5°	122.4	134.8	157.4	196.7	228.1
35°	99.7	113.1	138.1	179.6	214.7
37.5°	79.0	91.4	119.6	164.8	201.3
40°	58.2	71.6	100.7	150.5	187.0
42.5°	37.9	52.2	83.6	134.8	170.8
45°	20.3	32.8	69.3	118.7	153.8
47.5°	11.1	18.0	55.9	101.6	136.2
50°	8.8	10.2	43.4	86.8	119.1
52.5°	7.4	8.3	30.9	73.0	100.2
55°	6.0	7.4	21.2	58.2	82.2
57.5°	5.1	6.5	16.6	45.2	64.2
60°	3.7	5.5	15.7	33.2	47.1
62.5°	2.8	6.0	13.9	23.1	30.9
65°	2.3	6.9	11.5	15.2	16.6
67.5°	1.8	7.4	10.2	9.7	9.7
70°	1.8	6.9	8.8	8.3	8.8
72.5°	1.8	7.4	7.8	7.4	7.8
75°	1.8	6.9	6.9	6.9	6.9
77.5°	1.8	6.5	6.5	6.0	6.0
80°	1.8	5.5	5.5	5.5	5.1
82.5°	1.8	5.1	5.1	5.1	4.2
85°	1.8	4.6	4.6	4.6	3.7
87.5°	1.4	4.2	4.6	4.2	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)