

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: P1059031

Luminaire Tested: S123RDR-S1000D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059031
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1000D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 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

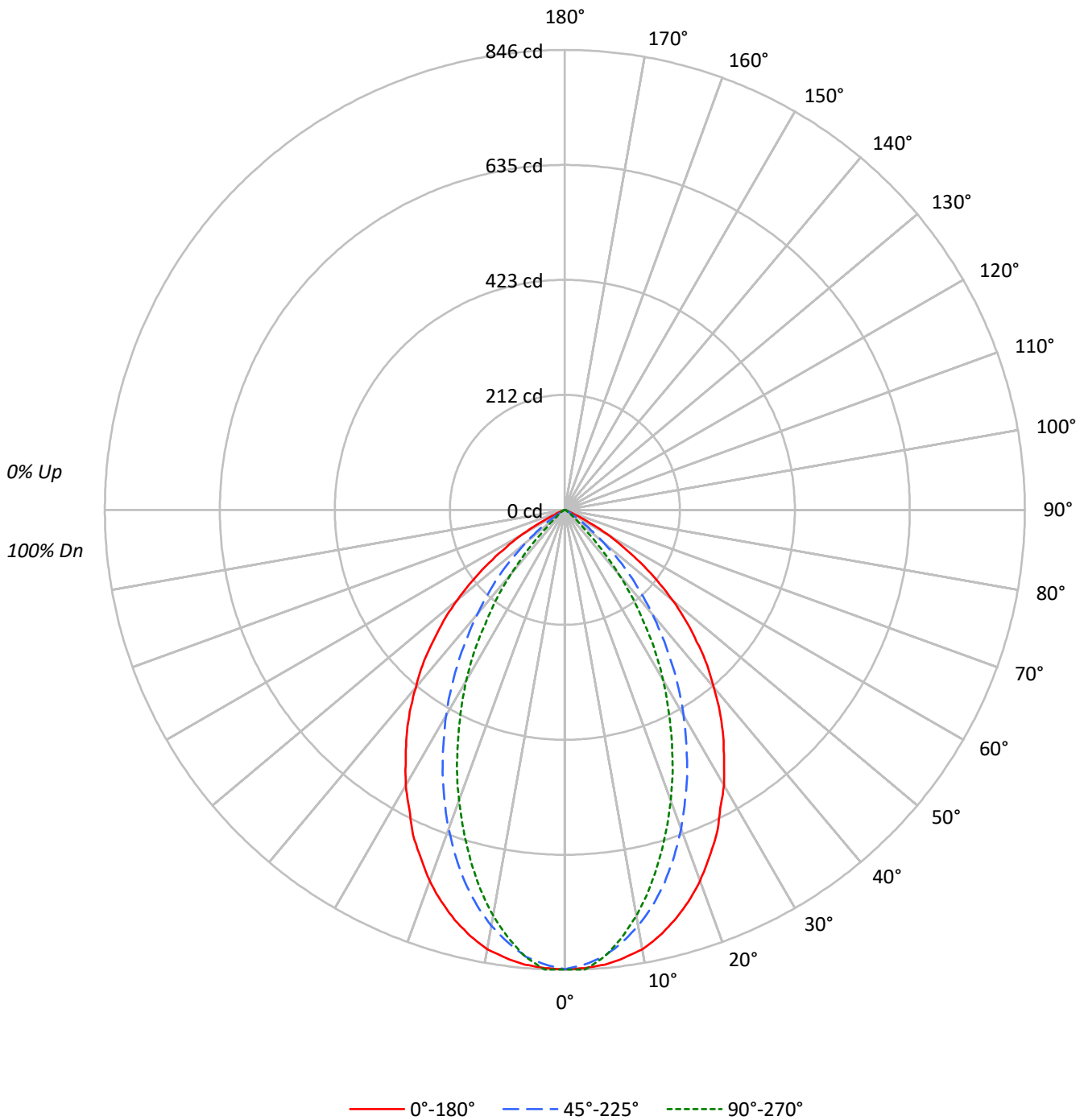
Lumens per Lamp: N/A
Luminaire Lumens: 964.5 lumens
Efficiency: N/A
Efficacy: 27.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92				92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69				69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63				63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58				58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53				53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49				49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46				46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42				42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9925	9925	9925
5°	9898	9722	9737
10°	9786	9266	9039
15°	9497	8620	8124
20°	9082	7806	7109
25°	8552	6895	6013
30°	7935	5924	4908
35°	7278	4897	3648
40°	6530	3838	2336
45°	5696	2803	971
50°	4724	1666	373
55°	3482	696	278
60°	2109	256	160
65°	567	150	75
70°	0	48	48
75°	0	0	64
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5696 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	8.1
10°-20°	200.8	20.8
20°-30°	250.3	25.9
30°-40°	223.8	23.2
40°-50°	141.2	14.6
50°-60°	59.1	6.1
60°-70°	11.1	1.2
70°-80°	0.4	0.0
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°	528.9	54.8
0°-40°	752.6	78.0
0°-60°	953.0	98.8
0°-90°	964.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	964.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	845	845	845	845	845	
5°	840	838	825	828	826	80
15°	781	762	709	679	668	219
25°	660	607	532	486	464	302
35°	508	434	342	280	254	316
45°	343	267	169	90	58	264
55°	170	117	34	14	14	152
65°	20	15	5	3	3	29
75°	0	0	0	0	1	0
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°	845.2	845.2	845.2	845.2	845.2
2.5°	843.8	845.2	837.0	845.2	846.5
5°	839.7	838.4	824.8	827.5	826.1
7.5°	831.6	827.5	803.0	797.6	794.8
10°	820.7	809.8	777.1	763.5	758.1
12.5°	803.0	788.0	745.8	724.1	715.9
15°	781.2	762.2	709.1	679.1	668.3
17.5°	755.4	728.1	668.3	635.6	619.3
20°	726.8	688.7	624.7	585.2	568.9
22.5°	692.8	650.6	578.4	536.2	518.5
25°	660.1	607.0	532.2	485.9	464.1
27.5°	619.3	563.5	483.2	435.5	412.4
30°	585.2	521.3	436.9	383.8	362.0
32.5°	544.4	477.7	389.2	330.7	310.3
35°	507.7	434.2	341.6	280.4	254.5
37.5°	468.2	392.0	294.0	230.0	205.5
40°	426.0	349.8	250.4	179.7	152.4
42.5°	387.9	307.6	206.9	133.4	106.2
45°	343.0	266.8	168.8	89.8	58.5
47.5°	302.1	228.7	127.9	50.4	31.3
50°	258.6	189.2	91.2	25.9	20.4
52.5°	213.7	151.1	59.9	17.7	16.3
55°	170.1	117.0	34.0	13.6	13.6
57.5°	127.9	84.4	17.7	10.9	9.5
60°	89.8	55.8	10.9	8.2	6.8
62.5°	51.7	32.7	8.2	5.4	5.4
65°	20.4	15.0	5.4	2.7	2.7
67.5°	1.4	4.1	2.7	1.4	1.4
70°	0.0	0.0	1.4	1.4	1.4
72.5°	0.0	0.0	1.4	1.4	1.4
75°	0.0	0.0	0.0	0.0	1.4
77.5°	0.0	0.0	0.0	0.0	0.0
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)