

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: P1059004

Luminaire Tested: S123RDR-S1000D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059004
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-S1000D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

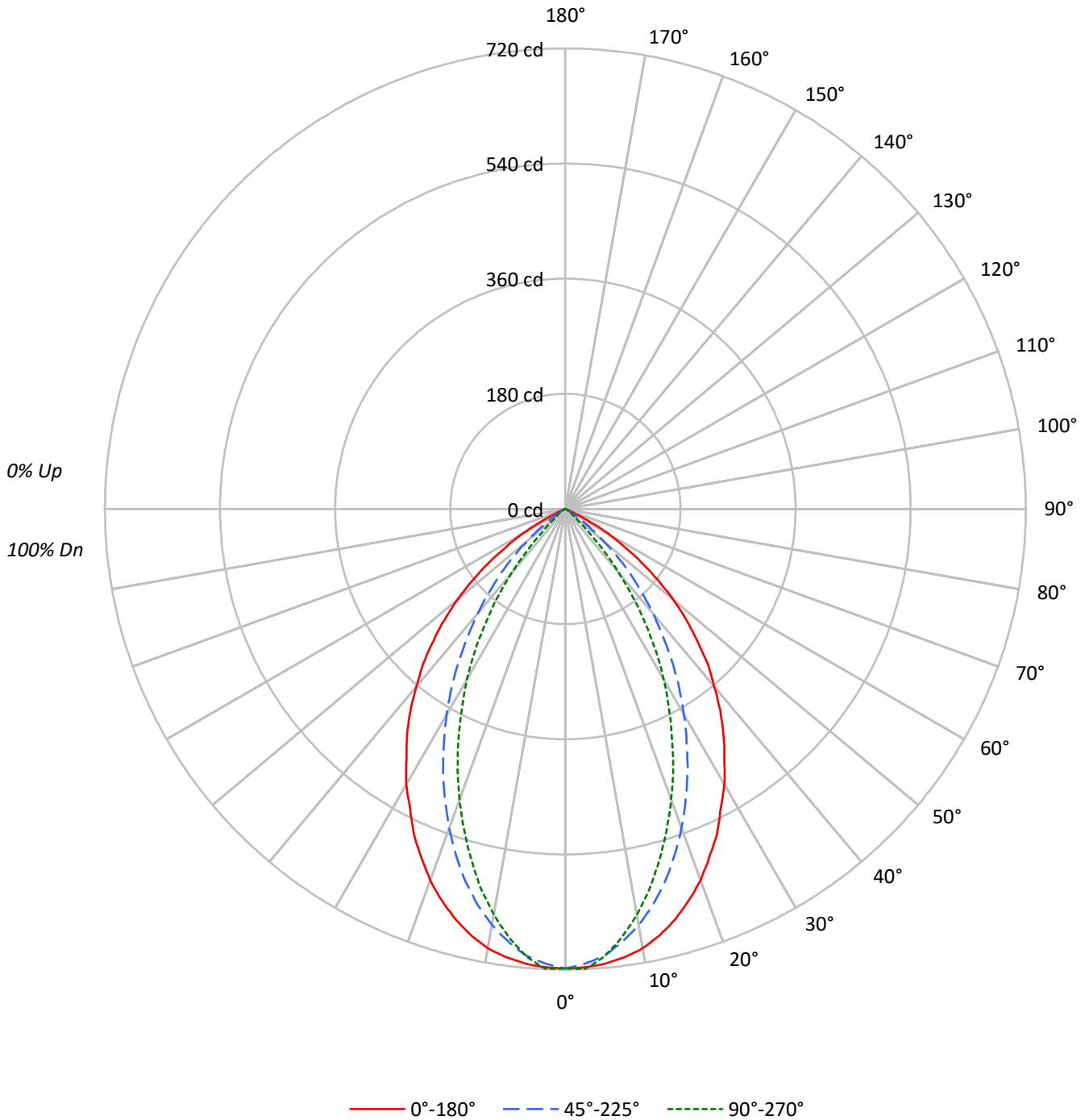
Lumens per Lamp: N/A
Luminaire Lumens: 819.7 lumens
Efficiency: N/A
Efficacy: 23.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8435	8435	8435
5°	8413	8263	8276
10°	8317	7876	7682
15°	8072	7327	6905
20°	7719	6634	6042
25°	7269	5860	5110
30°	6744	5034	4172
35°	6185	4161	3101
40°	5551	3262	1987
45°	4841	2381	825
50°	4015	1416	318
55°	2960	592	237
60°	1792	218	136
65°	483	128	64
70°	0	41	41
75°	0	0	54
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4841 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	8.1
10°-20°	170.7	20.8
20°-30°	212.7	25.9
30°-40°	190.2	23.2
40°-50°	120.0	14.6
50°-60°	50.2	6.1
60°-70°	9.5	1.2
70°-80°	0.3	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°	449.5	54.8
0°-40°	639.7	78.0
0°-60°	809.9	98.8
0°-90°	819.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	819.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	714	712	701	703	702	68
15°	664	648	603	577	568	186
25°	561	516	452	413	394	257
35°	432	369	290	238	216	269
45°	292	227	143	76	50	225
55°	145	100	29	12	12	130
65°	17	13	5	2	2	24
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°	718.3	718.3	718.3	718.3	718.3
2.5°	717.2	718.3	711.4	718.3	719.5
5°	713.7	712.5	701.0	703.3	702.1
7.5°	706.8	703.3	682.5	677.8	675.5
10°	697.5	688.3	660.5	648.9	644.3
12.5°	682.5	669.7	633.9	615.4	608.4
15°	664.0	647.8	602.7	577.2	568.0
17.5°	642.0	618.8	568.0	540.2	526.3
20°	617.7	585.3	530.9	497.4	483.5
22.5°	588.8	552.9	491.6	455.8	440.7
25°	561.0	515.9	452.3	413.0	394.4
27.5°	526.3	478.9	410.6	370.2	350.5
30°	497.4	443.0	371.3	326.2	307.7
32.5°	462.7	406.0	330.8	281.1	263.7
35°	431.5	369.0	290.3	238.3	216.3
37.5°	397.9	333.1	249.9	195.5	174.7
40°	362.1	297.3	212.8	152.7	129.6
42.5°	329.7	261.4	175.8	113.4	90.2
45°	291.5	226.7	143.4	76.3	49.7
47.5°	256.8	194.3	108.7	42.8	26.6
50°	219.8	160.8	77.5	22.0	17.4
52.5°	181.6	128.4	50.9	15.0	13.9
55°	144.6	99.5	28.9	11.6	11.6
57.5°	108.7	71.7	15.0	9.3	8.1
60°	76.3	47.4	9.3	6.9	5.8
62.5°	44.0	27.8	6.9	4.6	4.6
65°	17.4	12.7	4.6	2.3	2.3
67.5°	1.2	3.5	2.3	1.2	1.2
70°	0.0	0.0	1.2	1.2	1.2
72.5°	0.0	0.0	1.2	1.2	1.2
75°	0.0	0.0	0.0	0.0	1.2
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)