

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: P1059187

Luminaire Tested: S123RDR-S340D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059187
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S340D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

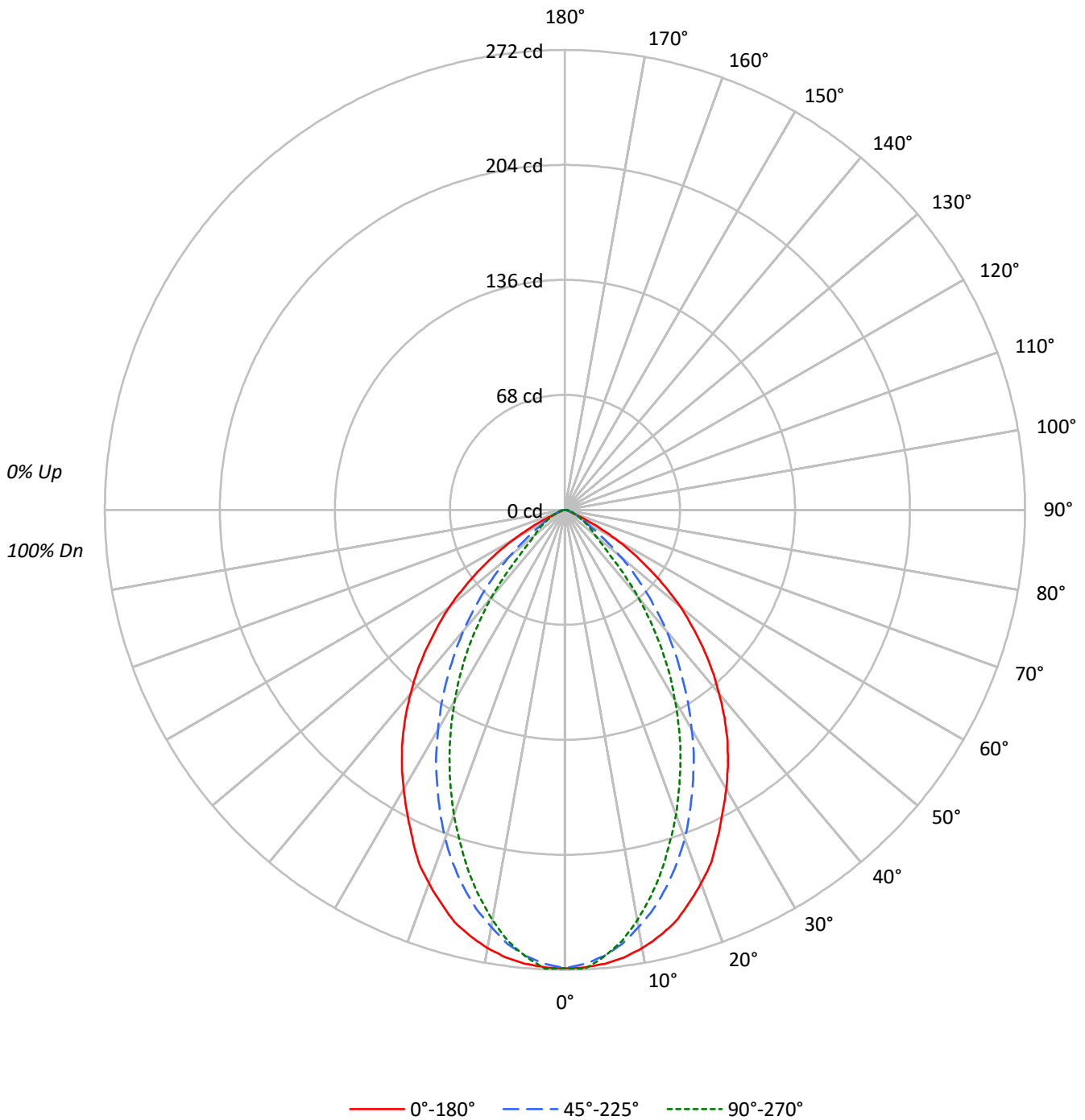
Lumens per Lamp: N/A
Luminaire Lumens: 350.1 lumens
Efficiency: N/A
Efficacy: 28.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	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	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3185	3185	3185
5°	3177	3122	3127
10°	3138	2988	2938
15°	3067	2812	2684
20°	2938	2587	2398
25°	2769	2317	2094
30°	2584	2032	1764
35°	2401	1733	1421
40°	2175	1429	1030
45°	1916	1108	621
50°	1626	775	422
55°	1239	465	352
60°	808	296	277
65°	339	222	222
70°	117	158	172
75°	95	113	132
80°	54	88	115
85°	54	54	108

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1916 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	7.2
10°-20°	65.6	18.7
20°-30°	84.1	24.0
30°-40°	78.9	22.5
40°-50°	55.0	15.7
50°-60°	28.5	8.1
60°-70°	9.7	2.8
70°-80°	2.8	0.8
80°-90°	0.6	0.2
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°	174.7	49.9
0°-40°	253.5	72.4
0°-60°	337.0	96.3
0°-90°	350.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	350.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	271	271	271	271	271	
5°	270	269	265	266	265	26
15°	252	246	231	224	221	71
25°	214	200	179	167	162	98
35°	168	147	121	105	99	104
45°	115	94	67	46	37	89
55°	60	45	23	18	17	54
65°	12	10	8	8	8	14
75°	2	2	2	3	3	2
85°	0	0	0	0	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	271.2	271.2	271.2	271.2	271.2
2.5°	270.8	271.2	268.7	271.2	271.6
5°	269.5	269.1	264.9	266.2	265.3
7.5°	267.0	265.7	259.0	257.3	257.3
10°	263.2	260.7	250.6	247.7	246.4
12.5°	258.2	254.8	241.8	236.4	234.3
15°	252.3	246.0	231.3	223.8	220.8
17.5°	243.9	235.5	219.6	210.7	206.1
20°	235.1	224.6	207.0	196.5	191.9
22.5°	225.9	213.3	193.1	181.8	176.7
25°	213.7	200.2	178.8	166.7	161.6
27.5°	201.9	187.7	165.0	151.1	146.1
30°	190.6	173.8	149.9	136.4	130.1
32.5°	179.3	160.4	135.6	120.9	115.0
35°	167.5	146.9	120.9	105.4	99.1
37.5°	154.9	133.9	107.1	90.3	82.7
40°	141.9	120.1	93.2	74.3	67.2
42.5°	128.9	107.5	79.3	60.0	51.6
45°	115.4	94.5	66.7	46.2	37.4
47.5°	102.0	81.4	54.6	33.6	28.1
50°	89.0	69.3	42.4	24.8	23.1
52.5°	74.7	57.5	31.9	20.6	20.2
55°	60.5	45.3	22.7	17.6	17.2
57.5°	47.9	35.3	16.4	14.7	14.3
60°	34.4	25.2	12.6	12.2	11.8
62.5°	22.7	17.2	10.1	9.7	9.7
65°	12.2	10.5	8.0	7.6	8.0
67.5°	5.0	5.9	5.9	6.3	6.3
70°	3.4	3.8	4.6	5.0	5.0
72.5°	2.5	2.9	3.4	3.8	3.8
75°	2.1	2.1	2.5	2.9	2.9
77.5°	1.3	1.7	1.7	2.1	2.5
80°	0.8	1.3	1.3	1.7	1.7
82.5°	0.4	0.8	0.8	1.3	1.3
85°	0.4	0.4	0.4	0.4	0.8
87.5°	0.0	0.0	0.0	0.0	0.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)