

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059230

Luminaire Tested: S123RDRP-S340D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059230
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D940-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

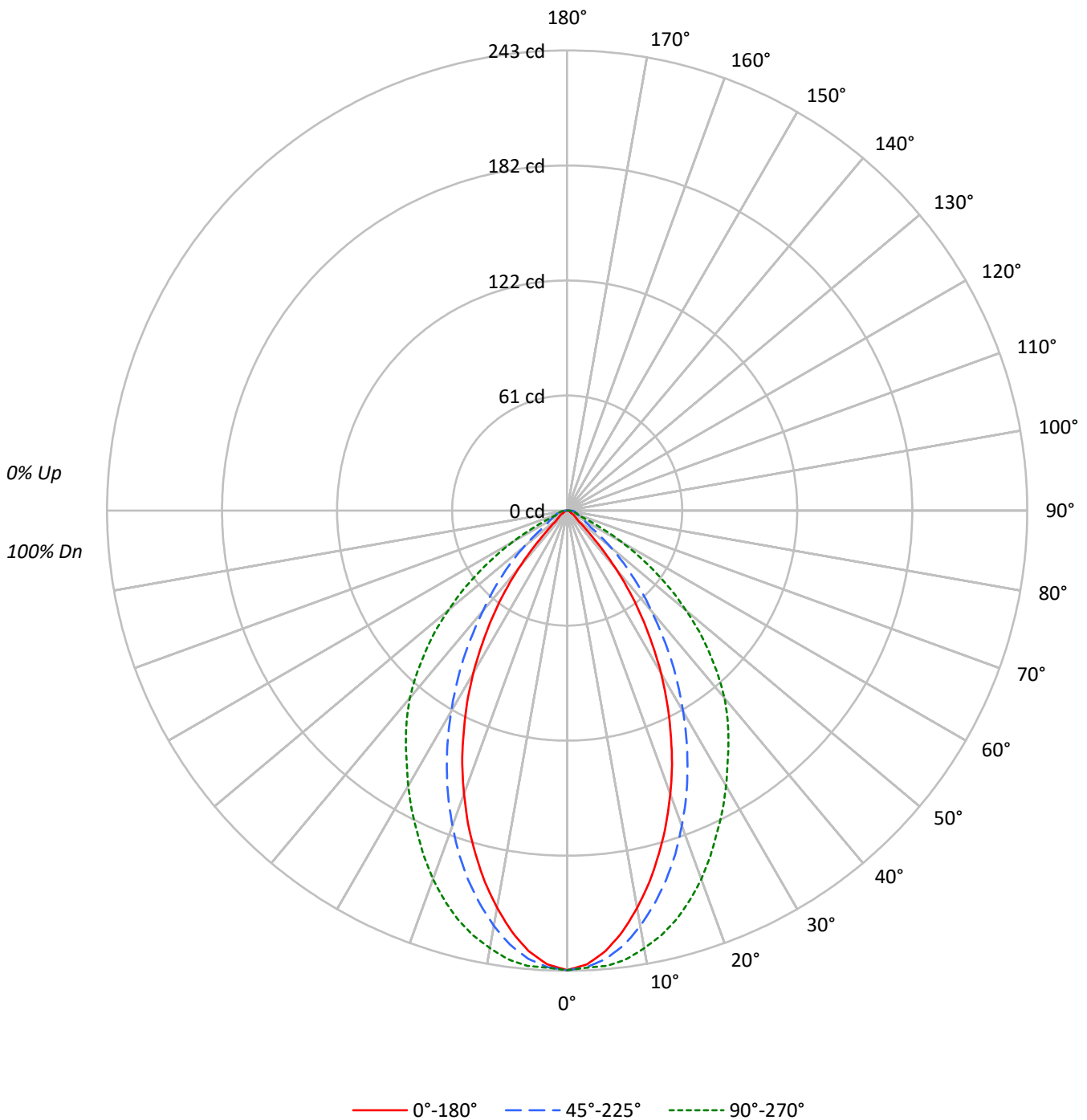
Lumens per Lamp: N/A
Luminaire Lumens: 291.6 lumens
Efficiency: N/A
Efficacy: 23.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2850	2850	2850
5°	2752	2799	2844
10°	2540	2655	2797
15°	2278	2454	2716
20°	1989	2212	2588
25°	1674	1947	2428
30°	1344	1661	2275
35°	985	1368	2129
40°	609	1064	1980
45°	234	802	1764
50°	115	550	1492
55°	92	303	1171
60°	61	254	784
65°	53	228	350
70°	51	203	203
75°	68	218	204
80°	101	277	223
85°	148	445	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1764 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.3	7.6
10°-20°	57.0	19.5
20°-30°	70.7	24.3
30°-40°	63.4	21.7
40°-50°	41.7	14.3
50°-60°	20.9	7.2
60°-70°	8.3	2.8
70°-80°	4.6	1.6
80°-90°	2.9	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°	150.0	51.4
0°-40°	213.3	73.1
0°-60°	275.8	94.6
0°-90°	291.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	291.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	243	243	243	243	243	
5°	234	237	238	239	241	22
15°	187	193	202	216	223	52
25°	129	137	150	172	187	59
35°	69	78	95	125	148	43
45°	14	23	48	81	106	13
55°	4	5	15	40	57	4
65°	2	5	8	10	13	2
75°	2	5	5	4	4	2
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	242.7	242.7	242.7	242.7	242.7
2.5°	239.8	243.1	241.3	241.3	241.6
5°	233.5	237.2	237.5	239.0	241.3
7.5°	224.2	229.0	231.2	235.7	239.0
10°	213.0	218.2	222.7	230.5	234.6
12.5°	200.8	206.0	212.7	223.4	229.7
15°	187.4	193.4	201.9	215.6	223.4
17.5°	173.7	179.6	190.0	205.6	215.6
20°	159.2	165.9	177.0	194.9	207.1
22.5°	144.8	152.2	164.1	183.4	197.5
25°	129.2	137.3	150.3	171.5	187.4
27.5°	114.3	122.9	136.6	159.6	177.8
30°	99.1	107.6	122.5	147.3	167.8
32.5°	83.5	93.2	108.7	135.8	157.7
35°	68.7	77.9	95.4	124.7	148.5
37.5°	54.2	63.5	81.7	113.9	139.2
40°	39.7	49.4	69.4	103.6	129.2
42.5°	26.0	36.0	58.6	93.2	118.0
45°	14.1	23.4	48.3	81.3	106.2
47.5°	7.8	12.6	39.0	70.1	94.6
50°	6.3	7.1	30.1	59.8	81.7
52.5°	5.2	5.9	21.5	49.7	69.8
55°	4.5	5.2	14.8	40.1	57.2
57.5°	3.7	4.5	11.9	30.8	44.9
60°	2.6	4.5	10.8	22.6	33.4
62.5°	2.2	4.5	9.3	15.6	22.3
65°	1.9	5.2	8.2	10.4	12.6
67.5°	1.5	5.2	7.1	6.7	6.7
70°	1.5	5.2	5.9	5.6	5.9
72.5°	1.5	5.6	5.6	5.2	5.2
75°	1.5	4.8	4.8	4.5	4.5
77.5°	1.5	4.5	4.5	4.1	4.1
80°	1.5	4.1	4.1	3.7	3.3
82.5°	1.5	3.7	3.7	3.3	3.0
85°	1.1	3.3	3.3	3.3	2.2
87.5°	1.1	3.0	3.3	3.0	1.9
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.00	0.00	0.00	0.00	10.18	11.44	10.55	11.75	12.07
	3H	0.00	0.00	0.00	0.10	0.47	10.26	11.38	10.64	11.71	12.07
	4H	0.00	0.85	0.22	1.21	1.59	10.33	11.36	10.73	11.71	12.10
	6H	0.88	1.83	1.29	2.20	2.60	10.43	11.38	10.84	11.75	12.14
	8H	1.42	2.32	1.85	2.71	3.12	10.49	11.39	10.92	11.78	12.18
	12H	1.89	2.75	2.32	3.13	3.56	10.55	11.41	10.99	11.80	12.23
4H	2H	0.00	0.43	0.00	0.78	1.17	10.04	11.08	10.45	11.43	11.82
	3H	1.85	2.69	2.26	3.10	3.50	10.22	11.07	10.63	11.47	11.87
	4H	3.18	3.93	3.61	4.36	4.80	10.35	11.11	10.79	11.53	11.97
	6H	4.32	4.98	4.79	5.42	5.89	10.57	11.22	11.03	11.67	12.13
	8H	4.83	5.44	5.30	5.89	6.36	10.69	11.30	11.16	11.75	12.22
	12H	5.28	5.82	5.77	6.30	6.78	10.85	11.39	11.33	11.87	12.34
8H	4H	4.10	4.71	4.57	5.16	5.63	10.35	10.97	10.82	11.41	11.89
	6H	5.71	6.21	6.21	6.71	7.19	10.68	11.18	11.19	11.68	12.16
	8H	6.53	6.98	7.05	7.50	7.99	10.91	11.36	11.43	11.88	12.37
	12H	7.29	7.69	7.81	8.19	8.76	11.23	11.63	11.74	12.12	12.70
12H	4H	4.27	4.81	4.75	5.29	5.76	10.34	10.88	10.83	11.37	11.84
	6H	6.02	6.47	6.54	6.99	7.48	10.71	11.16	11.24	11.68	12.17
	8H	7.02	7.42	7.54	7.91	8.49	11.02	11.42	11.54	11.91	12.49