

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: P1059188

Luminaire Tested: S123RDRP-S340D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

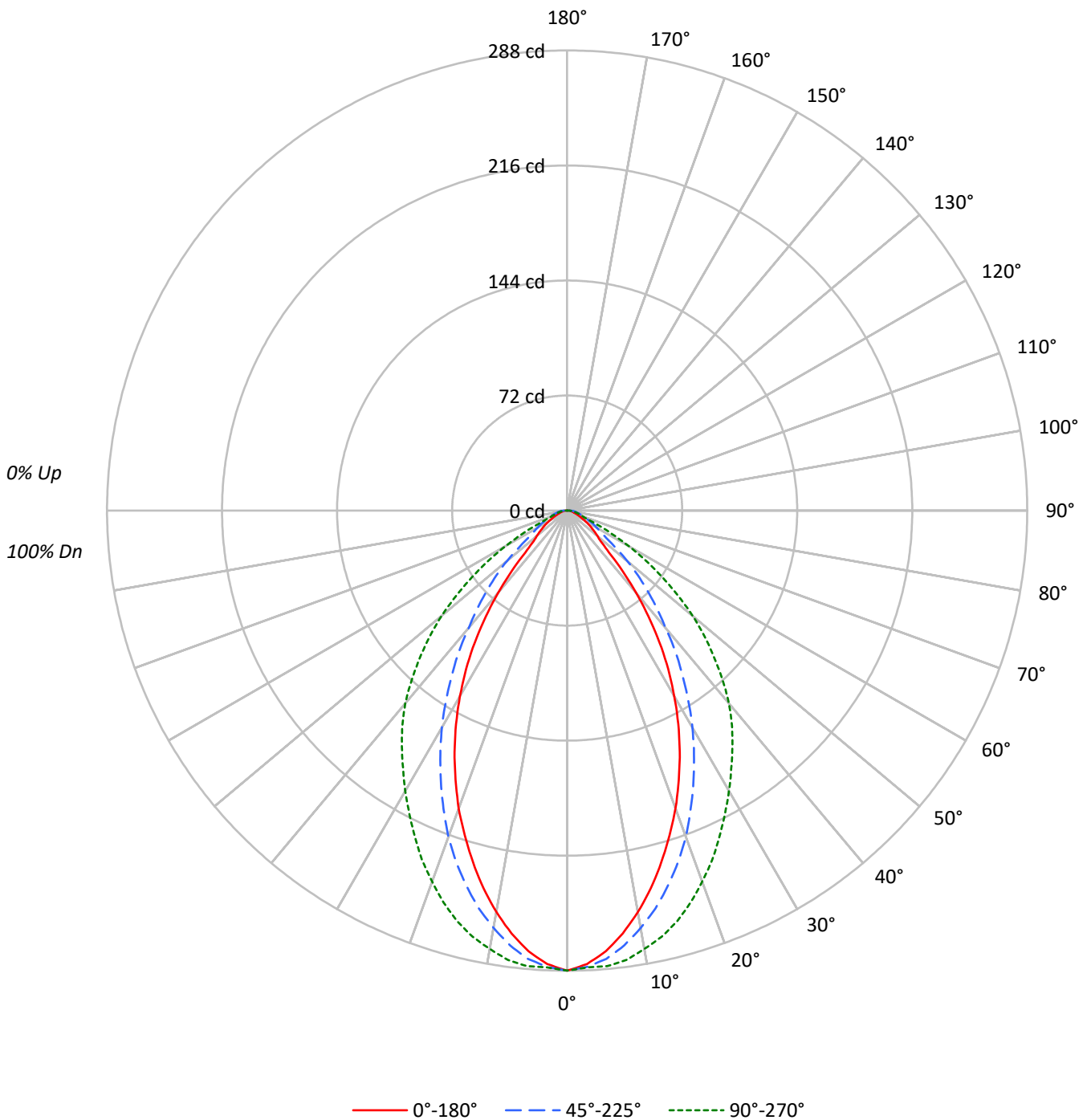
Lumens per Lamp: N/A
Luminaire Lumens: 385.5 lumens
Efficiency: N/A
Efficacy: 30.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3381	3381	3381
5°	3264	3319	3374
10°	3042	3162	3322
15°	2769	2958	3234
20°	2479	2715	3088
25°	2161	2423	2919
30°	1818	2126	2747
35°	1446	1802	2585
40°	1030	1468	2416
45°	614	1179	2164
50°	453	899	1872
55°	379	610	1488
60°	305	503	1045
65°	245	431	561
70°	203	374	347
75°	191	363	322
80°	196	399	311
85°	283	566	391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2164 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.4	6.9
10°-20°	68.7	17.8
20°-30°	87.6	22.7
30°-40°	82.4	21.4
40°-50°	59.2	15.4
50°-60°	34.0	8.8
60°-70°	15.5	4.0
70°-80°	7.8	2.0
80°-90°	3.8	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°	182.8	47.4
0°-40°	265.2	68.8
0°-60°	358.4	93.0
0°-90°	385.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	385.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	288	288	288	288	288	
5°	277	282	282	284	286	26
15°	228	236	243	256	266	64
25°	167	174	187	207	225	76
35°	101	108	126	154	180	62
45°	37	45	71	105	130	31
55°	18	19	30	55	73	17
65°	9	12	16	17	20	9
75°	4	8	8	7	7	5
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	287.9	287.9	287.9	287.9	287.9
2.5°	284.1	288.3	285.8	285.8	286.2
5°	276.9	282.4	281.6	283.7	286.2
7.5°	266.9	272.7	274.4	279.5	283.7
10°	255.1	261.8	265.2	273.2	278.6
12.5°	242.1	249.6	255.1	265.2	273.2
15°	227.8	235.8	243.3	256.4	266.0
17.5°	213.1	221.1	230.7	245.8	257.2
20°	198.4	206.3	217.3	233.2	247.1
22.5°	182.4	190.4	202.1	220.2	237.0
25°	166.8	174.4	187.0	207.2	225.3
27.5°	150.5	158.0	171.9	193.7	213.9
30°	134.1	141.6	156.8	180.3	202.6
32.5°	117.7	124.8	141.2	167.3	191.2
35°	100.9	108.0	125.7	154.2	180.3
37.5°	83.6	90.8	111.4	142.5	169.4
40°	67.2	75.2	95.8	130.7	157.6
42.5°	51.3	59.7	83.2	118.1	144.1
45°	37.0	45.0	71.0	104.6	130.3
47.5°	28.2	32.4	60.1	91.2	116.8
50°	24.8	25.2	49.2	79.0	102.5
52.5°	21.4	21.9	38.2	67.2	87.4
55°	18.5	18.9	29.8	55.1	72.7
57.5°	15.5	16.4	24.4	43.7	58.4
60°	13.0	14.7	21.4	33.2	44.5
62.5°	10.5	13.4	18.5	24.4	31.9
65°	8.8	12.2	15.5	17.2	20.2
67.5°	7.1	11.3	13.0	12.2	12.2
70°	5.9	10.1	10.9	10.1	10.1
72.5°	5.0	9.7	9.2	8.4	8.4
75°	4.2	8.4	8.0	7.1	7.1
77.5°	3.8	7.1	6.7	6.3	5.9
80°	2.9	5.9	5.9	5.5	4.6
82.5°	2.5	5.0	5.0	4.6	3.8
85°	2.1	4.2	4.2	3.8	2.9
87.5°	1.7	3.8	3.8	3.4	2.1
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	4.22	5.53	4.58	5.85	6.16	11.44	12.76	11.80	13.07	13.38
	3H	5.61	6.78	5.99	7.11	7.47	11.68	12.84	12.06	13.17	13.54
	4H	6.17	7.26	6.57	7.61	7.99	11.78	12.87	12.18	13.22	13.60
	6H	6.63	7.63	7.04	8.00	8.40	11.89	12.89	12.30	13.26	13.65
	8H	6.81	7.76	7.24	8.15	8.56	11.94	12.89	12.37	13.28	13.68
	12H	7.00	7.91	7.43	8.29	8.72	11.99	12.89	12.42	13.28	13.71
4H	2H	5.28	6.37	5.69	6.72	7.11	11.40	12.49	11.80	12.84	13.22
	3H	6.97	7.87	7.39	8.27	8.67	11.77	12.66	12.18	13.06	13.47
	4H	7.81	8.60	8.24	9.02	9.47	11.95	12.75	12.38	13.17	13.61
	6H	8.46	9.15	8.93	9.60	10.07	12.17	12.86	12.64	13.31	13.78
	8H	8.71	9.36	9.18	9.81	10.28	12.27	12.92	12.74	13.37	13.84
	12H	8.97	9.54	9.45	10.02	10.50	12.39	12.96	12.87	13.44	13.92
8H	4H	8.24	8.89	8.71	9.33	9.80	11.99	12.64	12.46	13.09	13.56
	6H	9.19	9.72	9.69	10.22	10.70	12.33	12.86	12.83	13.35	13.84
	8H	9.65	10.13	10.17	10.64	11.13	12.52	12.99	13.04	13.51	14.00
	12H	10.13	10.55	10.64	11.05	11.62	12.75	13.17	13.26	13.67	14.24
12H	4H	8.30	8.87	8.79	9.36	9.83	11.99	12.56	12.47	13.04	13.51
	6H	9.34	9.82	9.86	10.33	10.82	12.35	12.83	12.88	13.35	13.84
	8H	9.92	10.35	10.44	10.84	11.41	12.61	13.04	13.13	13.53	14.10