

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: P1059185

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059185
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-S340D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

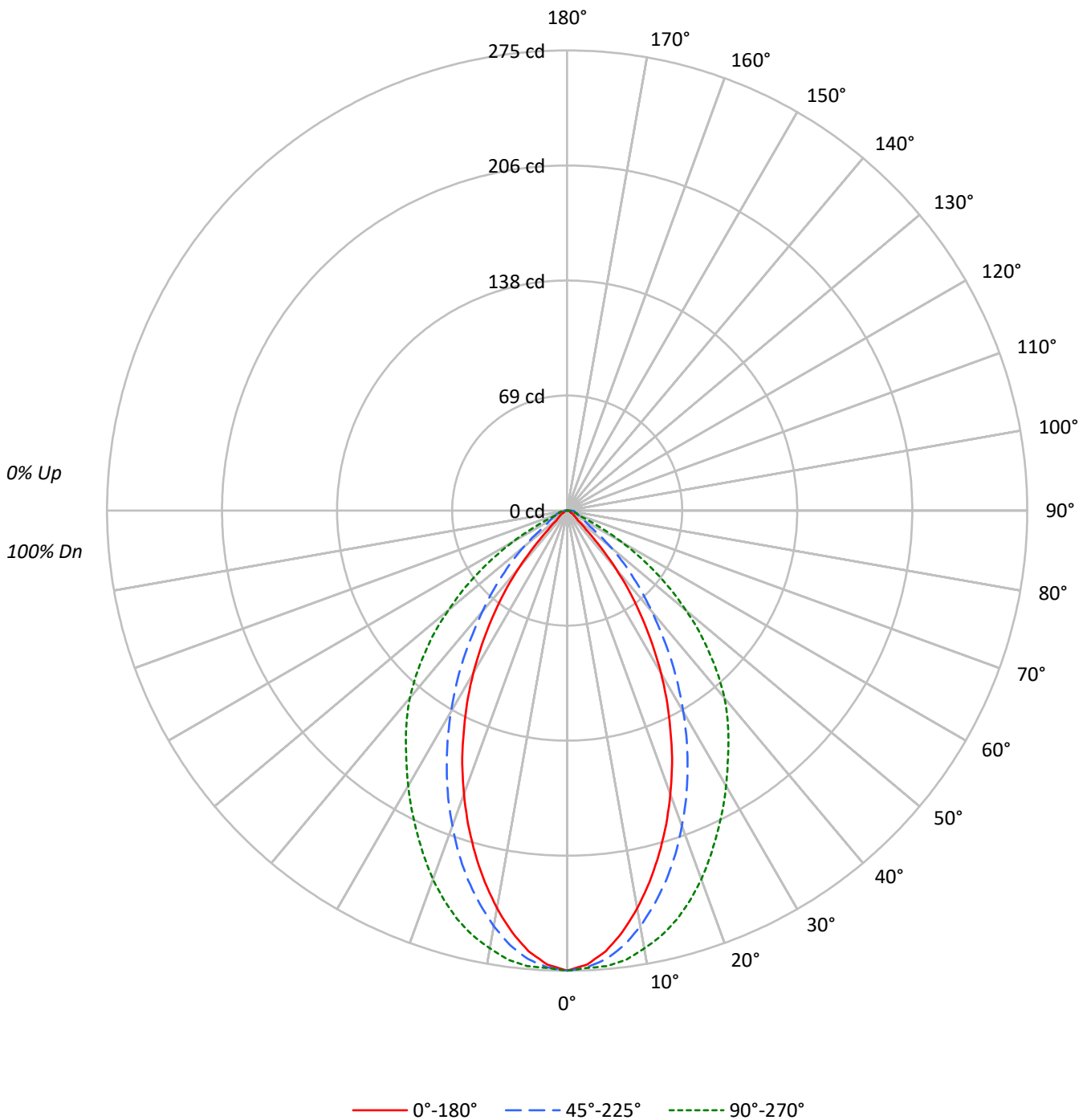
Lumens per Lamp: N/A
Luminaire Lumens: 330.2 lumens
Efficiency: N/A
Efficacy: 26.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	3228	3228	3228
5°	3117	3171	3220
10°	2877	3007	3168
15°	2581	2780	3076
20°	2253	2505	2930
25°	1896	2205	2751
30°	1521	1881	2576
35°	1115	1548	2410
40°	690	1205	2243
45°	266	907	1996
50°	130	621	1690
55°	102	344	1325
60°	68	287	888
65°	58	256	397
70°	58	230	230
75°	77	250	227
80°	115	311	257
85°	175	512	337

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1996 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.2	7.6
10°-20°	64.5	19.5
20°-30°	80.1	24.3
30°-40°	71.7	21.7
40°-50°	47.2	14.3
50°-60°	23.6	7.2
60°-70°	9.3	2.8
70°-80°	5.2	1.6
80°-90°	3.3	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°	169.8	51.4
0°-40°	241.6	73.2
0°-60°	312.4	94.6
0°-90°	330.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	330.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	275	275	275	275	275	
5°	264	269	269	271	273	24
15°	212	219	229	244	253	59
25°	146	156	170	194	212	67
35°	78	88	108	141	168	48
45°	16	26	55	92	120	15
55°	5	6	17	45	65	4
65°	2	6	9	12	14	2
75°	2	6	6	5	5	2
85°	1	4	4	4	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	274.9	274.9	274.9	274.9	274.9
2.5°	271.5	275.3	273.2	273.2	273.6
5°	264.4	268.6	269.0	270.7	273.2
7.5°	253.9	259.3	261.9	266.9	270.7
10°	241.3	247.2	252.2	261.0	265.7
12.5°	227.4	233.3	240.9	253.0	260.2
15°	212.3	219.0	228.7	244.2	253.0
17.5°	196.7	203.4	215.2	232.9	244.2
20°	180.3	187.9	200.5	220.7	234.5
22.5°	163.9	172.3	185.8	207.6	223.6
25°	146.3	155.5	170.2	194.2	212.3
27.5°	129.5	139.1	154.7	180.7	201.3
30°	112.2	121.9	138.7	166.9	190.0
32.5°	94.6	105.5	123.2	153.8	178.6
35°	77.8	88.3	108.0	141.2	168.1
37.5°	61.4	71.9	92.5	129.0	157.6
40°	45.0	55.9	78.6	117.3	146.3
42.5°	29.4	40.8	66.4	105.5	133.7
45°	16.0	26.5	54.6	92.1	120.2
47.5°	8.8	14.3	44.1	79.4	107.2
50°	7.1	8.0	34.0	67.7	92.5
52.5°	5.9	6.7	24.4	56.3	79.0
55°	5.0	5.9	16.8	45.4	64.7
57.5°	4.2	5.0	13.5	34.9	50.9
60°	2.9	5.0	12.2	25.6	37.8
62.5°	2.5	5.0	10.5	17.7	25.2
65°	2.1	5.9	9.2	11.8	14.3
67.5°	1.7	5.9	8.0	7.6	7.6
70°	1.7	5.9	6.7	6.3	6.7
72.5°	1.7	6.3	6.3	5.9	5.9
75°	1.7	5.5	5.5	5.0	5.0
77.5°	1.7	5.0	5.0	4.6	4.6
80°	1.7	4.6	4.6	4.2	3.8
82.5°	1.7	4.2	4.2	3.8	3.4
85°	1.3	3.8	3.8	3.8	2.5
87.5°	1.3	3.4	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	0.00	0.00	0.00	0.00	0.00	10.62	11.88	10.99	12.19	12.51
	3H	0.00	0.16	0.00	0.49	0.85	10.70	11.81	11.08	12.14	12.51
	4H	0.23	1.26	0.63	1.61	2.00	10.76	11.80	11.17	12.15	12.53
	6H	1.28	2.23	1.70	2.60	3.00	10.86	11.81	11.27	12.18	12.58
	8H	1.83	2.72	2.26	3.12	3.52	10.92	11.82	11.35	12.21	12.62
	12H	2.32	3.18	2.75	3.56	3.99	10.99	11.85	11.42	12.23	12.66
4H	2H	0.00	0.79	0.15	1.14	1.52	10.48	11.51	10.88	11.87	12.25
	3H	2.24	3.09	2.65	3.49	3.89	10.65	11.50	11.07	11.91	12.31
	4H	3.60	4.36	4.04	4.78	5.22	10.78	11.54	11.21	11.96	12.40
	6H	4.73	5.38	5.19	5.83	6.30	10.99	11.65	11.46	12.09	12.56
	8H	5.24	5.85	5.71	6.30	6.77	11.12	11.73	11.59	12.18	12.65
	12H	5.71	6.25	6.20	6.73	7.21	11.28	11.82	11.77	12.30	12.78
8H	4H	4.51	5.12	4.98	5.57	6.04	10.78	11.39	11.25	11.84	12.31
	6H	6.10	6.60	6.61	7.10	7.58	11.11	11.61	11.61	12.11	12.59
	8H	6.93	7.38	7.46	7.90	8.39	11.34	11.79	11.87	12.31	12.80
	12H	7.73	8.12	8.24	8.62	9.19	11.67	12.07	12.18	12.56	13.14
12H	4H	4.68	5.22	5.17	5.70	6.18	10.77	11.31	11.26	11.79	12.27
	6H	6.42	6.87	6.94	7.39	7.88	11.14	11.59	11.66	12.11	12.60
	8H	7.43	7.83	7.95	8.33	8.90	11.45	11.85	11.97	12.35	12.92