

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



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: P1059585

Luminaire Tested: S123RDR-H340D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059585
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D835-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

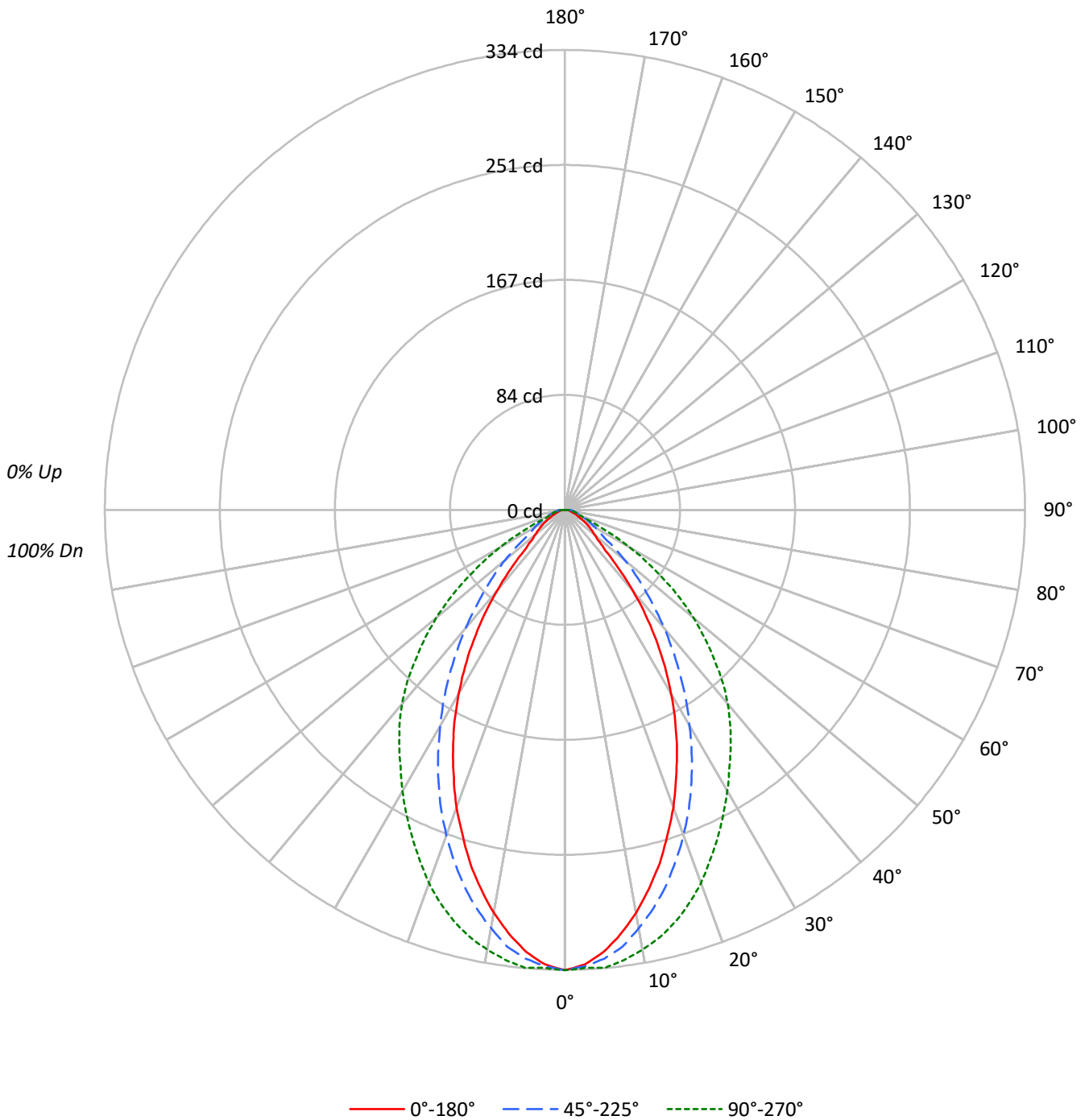
Lumens per Lamp: N/A
Luminaire Lumens: 448.7 lumens
Efficiency: N/A
Efficacy: 38.4 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89	
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			79	
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64			64	
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58			58	
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52			52	
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48			48	
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44			44	
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40			40	
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			37	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3925	3925	3925
5°	3798	3857	3935
10°	3545	3678	3867
15°	3230	3438	3766
20°	2874	3144	3606
25°	2492	2814	3400
30°	2088	2454	3197
35°	1654	2089	3006
40°	1171	1718	2819
45°	689	1358	2537
50°	515	1032	2223
55°	434	696	1785
60°	350	594	1268
65°	278	508	670
70°	244	443	412
75°	227	413	395
80°	223	446	392
85°	283	674	498

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2537 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.8	6.9
10°-20°	80.0	17.8
20°-30°	101.8	22.7
30°-40°	95.8	21.3
40°-50°	69.0	15.4
50°-60°	39.8	8.9
60°-70°	18.2	4.1
70°-80°	9.1	2.0
80°-90°	4.3	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°	212.5	47.4
0°-40°	308.3	68.7
0°-60°	417.1	93.0
0°-90°	448.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	448.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	334	334	334	334	334	
5°	322	328	327	330	334	30
15°	266	275	283	298	310	74
25°	192	202	217	241	262	88
35°	115	125	146	179	210	72
45°	42	52	82	123	153	35
55°	21	22	34	65	87	19
65°	10	14	18	20	24	10
75°	5	10	9	9	9	5
85°	2	5	5	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	334.3	334.3	334.3	334.3	334.3
2.5°	330.5	334.7	331.8	332.2	333.0
5°	322.2	327.6	327.2	330.5	333.8
7.5°	310.6	316.8	320.1	325.1	329.7
10°	297.3	304.4	308.5	317.6	324.3
12.5°	281.9	291.1	296.5	308.5	318.1
15°	265.7	275.3	282.8	298.5	309.8
17.5°	247.5	257.9	267.4	286.1	299.8
20°	230.0	240.0	251.6	272.0	288.6
22.5°	210.9	221.7	235.0	256.6	275.3
25°	192.3	202.2	217.2	241.2	262.4
27.5°	173.6	183.5	199.3	225.9	249.1
30°	154.0	164.4	181.0	210.5	235.8
32.5°	134.9	144.9	163.6	195.6	222.1
35°	115.4	125.4	145.7	179.4	209.7
37.5°	96.3	106.7	128.3	166.1	197.2
40°	76.4	87.6	112.1	152.4	183.9
42.5°	57.7	69.8	95.9	138.3	169.4
45°	41.5	51.9	81.8	122.9	152.8
47.5°	32.4	37.8	68.9	107.1	137.4
50°	28.2	29.1	56.5	92.6	121.7
52.5°	24.5	25.3	44.4	78.9	105.1
55°	21.2	22.0	34.0	64.8	87.2
57.5°	17.9	19.1	28.2	51.5	70.2
60°	14.9	16.6	25.3	39.4	54.0
62.5°	12.0	14.9	21.6	29.1	38.6
65°	10.0	14.1	18.3	20.3	24.1
67.5°	8.3	12.9	15.4	14.5	14.1
70°	7.1	11.6	12.9	11.6	12.0
72.5°	5.8	10.8	10.8	10.0	10.0
75°	5.0	9.6	9.1	8.7	8.7
77.5°	4.2	8.3	7.9	7.5	7.1
80°	3.3	6.6	6.6	6.2	5.8
82.5°	2.9	5.4	5.4	5.4	4.6
85°	2.1	4.6	5.0	4.6	3.7
87.5°	1.7	4.2	4.2	3.7	2.5
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	4.72	6.04	5.09	6.36	6.67	12.09	13.40	12.45	13.72	14.03
	3H	6.11	7.28	6.49	7.61	7.98	12.31	13.48	12.69	13.81	14.18
	4H	6.67	7.76	7.07	8.11	8.49	12.43	13.52	12.83	13.87	14.25
	6H	7.10	8.11	7.52	8.48	8.87	12.54	13.55	12.96	13.92	14.31
	8H	7.28	8.23	7.71	8.62	9.02	12.60	13.55	13.03	13.94	14.34
	12H	7.44	8.34	7.87	8.73	9.16	12.66	13.56	13.09	13.95	14.38
4H	2H	5.83	6.92	6.23	7.27	7.65	12.04	13.13	12.45	13.49	13.87
	3H	7.49	8.38	7.90	8.78	9.19	12.40	13.30	12.82	13.70	14.10
	4H	8.30	9.10	8.74	9.52	9.96	12.60	13.40	13.03	13.82	14.26
	6H	8.94	9.63	9.40	10.07	10.54	12.83	13.52	13.29	13.96	14.43
	8H	9.17	9.81	9.64	10.26	10.73	12.93	13.58	13.40	14.02	14.50
	12H	9.38	9.96	9.87	10.44	10.91	13.06	13.63	13.55	14.11	14.59
8H	4H	8.74	9.39	9.21	9.84	10.31	12.64	13.28	13.11	13.73	14.20
	6H	9.65	10.18	10.15	10.67	11.15	12.96	13.49	13.47	13.99	14.47
	8H	10.07	10.54	10.59	11.06	11.55	13.16	13.63	13.68	14.15	14.64
	12H	10.49	10.91	11.00	11.41	11.98	13.41	13.83	13.92	14.32	14.89
12H	4H	8.80	9.37	9.29	9.85	10.33	12.63	13.20	13.11	13.68	14.15
	6H	9.78	10.26	10.30	10.77	11.27	12.98	13.46	13.50	13.97	14.46
	8H	10.32	10.74	10.83	11.24	11.81	13.24	13.66	13.75	14.15	14.73