

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: P1059582

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

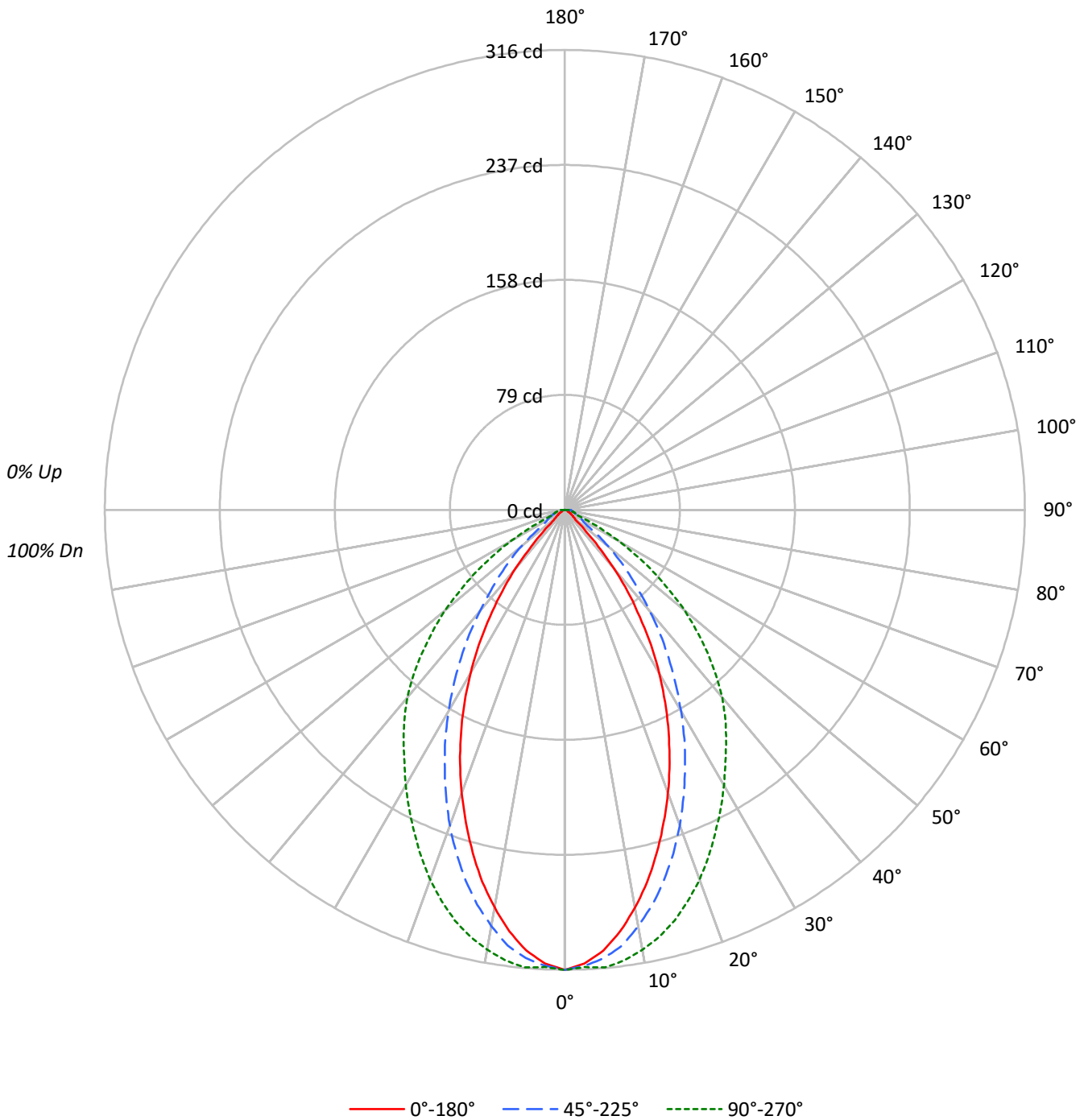
Lumens per Lamp: N/A
Luminaire Lumens: 379.5 lumens
Efficiency: N/A
Efficacy: 32.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	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	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
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	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3712	3712	3712
5°	3583	3642	3720
10°	3308	3461	3659
15°	2969	3201	3550
20°	2589	2885	3379
25°	2184	2529	3169
30°	1757	2163	2963
35°	1286	1780	2768
40°	802	1387	2578
45°	304	1035	2297
50°	144	712	1958
55°	111	391	1513
60°	78	331	996
65°	58	289	417
70°	58	271	271
75°	77	281	281
80°	115	338	311
85°	229	566	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2297 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	7.6
10°-20°	74.4	19.6
20°-30°	92.1	24.3
30°-40°	82.6	21.8
40°-50°	54.1	14.3
50°-60°	27.1	7.1
60°-70°	10.6	2.8
70°-80°	5.9	1.6
80°-90°	3.7	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°	195.5	51.5
0°-40°	278.1	73.3
0°-60°	359.3	94.7
0°-90°	379.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	379.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	316	316	316	316	316	
5°	304	309	309	312	316	28
15°	244	254	263	281	292	68
25°	169	179	195	223	245	77
35°	90	102	124	162	193	56
45°	18	30	62	107	138	17
55°	5	7	19	52	74	5
65°	2	6	10	14	15	2
75°	2	6	6	6	6	2
85°	2	4	4	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	316.1	316.1	316.1	316.1	316.1
2.5°	311.9	316.5	313.6	314.0	314.4
5°	304.0	309.0	309.0	312.3	315.6
7.5°	292.0	297.8	301.9	307.8	312.3
10°	277.4	284.5	290.3	300.7	306.9
12.5°	261.7	270.4	277.9	291.6	300.3
15°	244.2	254.2	263.3	280.8	292.0
17.5°	225.5	235.5	247.5	267.9	281.6
20°	207.2	217.2	230.9	253.8	270.4
22.5°	188.1	198.5	213.1	238.4	257.9
25°	168.6	179.0	195.2	223.0	244.6
27.5°	149.1	159.5	177.8	208.1	231.8
30°	129.6	140.0	159.5	191.9	218.5
32.5°	110.1	121.3	141.6	176.9	205.2
35°	89.7	101.8	124.2	161.6	193.1
37.5°	71.0	82.2	107.6	148.3	181.1
40°	52.3	64.4	90.5	135.4	168.2
42.5°	34.1	46.9	75.2	121.3	153.7
45°	18.3	29.5	62.3	106.7	138.3
47.5°	10.0	16.2	50.3	91.4	122.5
50°	7.9	9.1	39.0	78.1	107.2
52.5°	6.6	7.5	27.8	65.6	90.1
55°	5.4	6.6	19.1	52.3	73.9
57.5°	4.6	5.8	15.0	40.7	57.7
60°	3.3	5.0	14.1	29.9	42.4
62.5°	2.5	5.4	12.5	20.8	27.8
65°	2.1	6.2	10.4	13.7	15.0
67.5°	1.7	6.6	9.1	8.7	8.7
70°	1.7	6.2	7.9	7.5	7.9
72.5°	1.7	6.6	7.1	6.6	7.1
75°	1.7	6.2	6.2	6.2	6.2
77.5°	1.7	5.8	5.8	5.4	5.4
80°	1.7	5.0	5.0	5.0	4.6
82.5°	1.7	4.6	4.6	4.6	3.7
85°	1.7	4.2	4.2	4.2	3.3
87.5°	1.2	3.7	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	0.00	0.00	0.00	0.00	0.00	11.16	12.42	11.52	12.73	13.04
	3H	0.00	0.35	0.00	0.68	1.05	11.24	12.35	11.62	12.68	13.05
	4H	0.35	1.39	0.76	1.74	2.12	11.32	12.35	11.72	12.70	13.09
	6H	1.36	2.31	1.78	2.68	3.08	11.42	12.37	11.84	12.74	13.14
	8H	1.86	2.75	2.29	3.15	3.55	11.48	12.38	11.91	12.77	13.17
	12H	2.43	3.29	2.86	3.67	4.10	11.56	12.42	11.99	12.80	13.23
4H	2H	0.17	1.20	0.57	1.55	1.94	11.01	12.05	11.42	12.40	12.78
	3H	2.48	3.32	2.89	3.73	4.13	11.19	12.04	11.60	12.44	12.84
	4H	3.84	4.60	4.28	5.02	5.46	11.34	12.10	11.78	12.52	12.96
	6H	4.94	5.60	5.41	6.04	6.51	11.57	12.22	12.03	12.67	13.13
	8H	5.41	6.02	5.88	6.47	6.94	11.69	12.30	12.16	12.75	13.22
	12H	5.92	6.46	6.41	6.94	7.42	11.86	12.40	12.35	12.89	13.36
8H	4H	4.82	5.43	5.29	5.87	6.35	11.34	11.95	11.81	12.39	12.87
	6H	6.35	6.85	6.86	7.35	7.83	11.68	12.18	12.18	12.67	13.16
	8H	7.14	7.59	7.66	8.10	8.60	11.91	12.36	12.43	12.88	13.37
	12H	7.96	8.36	8.47	8.85	9.42	12.25	12.64	12.76	13.14	13.71
12H	4H	5.00	5.53	5.48	6.02	6.49	11.32	11.86	11.81	12.34	12.82
	6H	6.67	7.12	7.19	7.64	8.13	11.70	12.15	12.22	12.66	13.16
	8H	7.64	8.04	8.15	8.53	9.10	12.01	12.41	12.52	12.90	13.48