

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: P1059627

Luminaire Tested: S123RDR-H340D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059627
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-H340D935-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, 90 CRI LEDS
Ballast/Driver: -

Summary

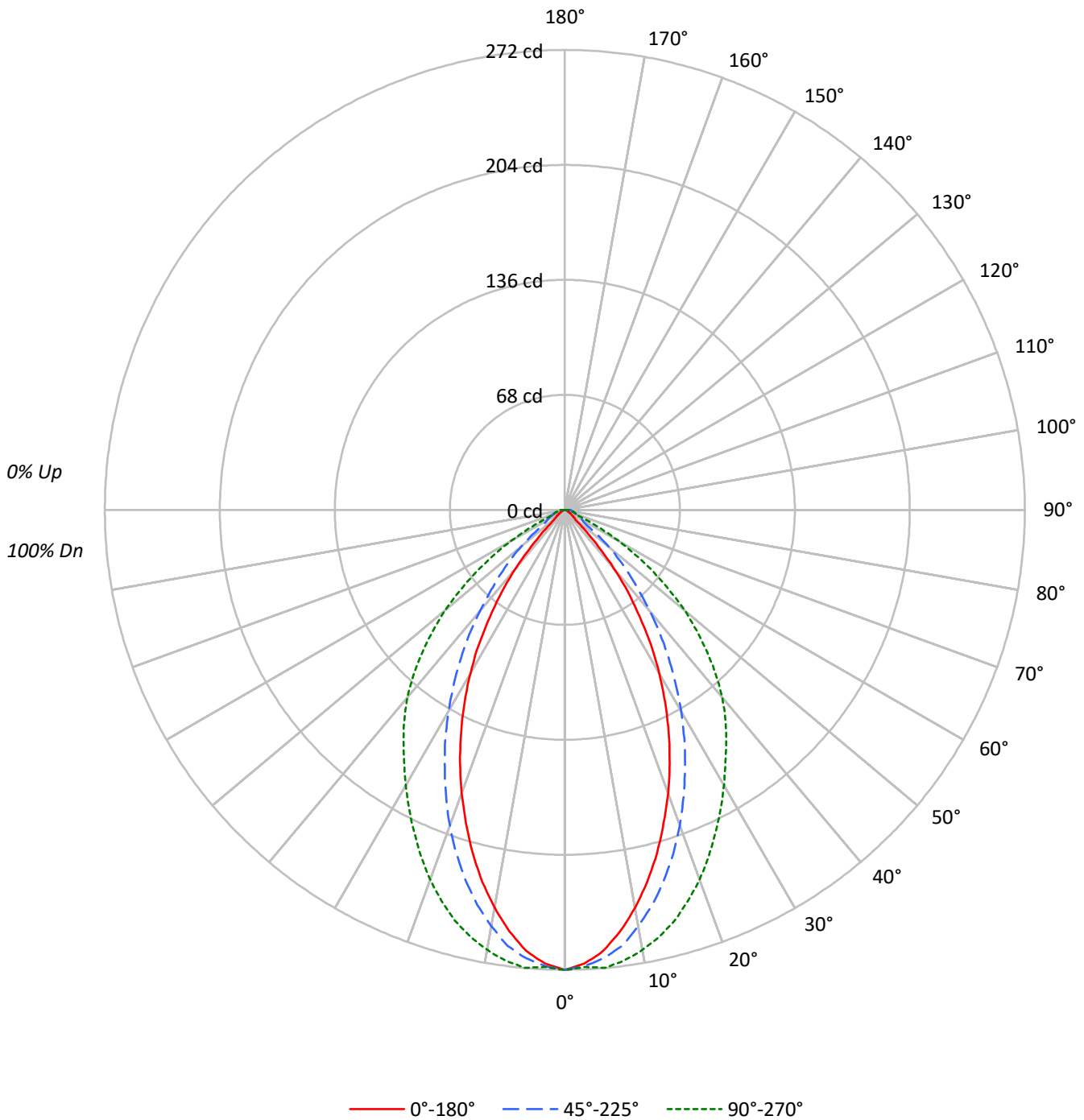
Lumens per Lamp: N/A
Luminaire Lumens: 326.7 lumens
Efficiency: N/A
Efficacy: 27.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	87	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°	3195	3195	3195
5°	3086	3137	3204
10°	2849	2981	3151
15°	2557	2756	3056
20°	2229	2484	2909
25°	1881	2178	2729
30°	1513	1862	2550
35°	1107	1532	2384
40°	691	1196	2220
45°	261	890	1978
50°	124	614	1686
55°	94	336	1304
60°	68	287	857
65°	50	247	358
70°	48	233	233
75°	64	245	245
80°	95	291	264
85°	189	485	391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1978 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	7.6
10°-20°	64.1	19.6
20°-30°	79.3	24.3
30°-40°	71.1	21.8
40°-50°	46.6	14.3
50°-60°	23.3	7.1
60°-70°	9.1	2.8
70°-80°	5.1	1.6
80°-90°	3.2	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°	168.3	51.5
0°-40°	239.4	73.3
0°-60°	309.3	94.7
0°-90°	326.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	326.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	272	272	272	272	272	
5°	262	266	266	269	272	24
15°	210	219	227	242	251	59
25°	145	154	168	192	211	66
35°	77	88	107	139	166	48
45°	16	25	54	92	119	15
55°	5	6	16	45	64	4
65°	2	5	9	12	13	2
75°	1	5	5	5	5	1
85°	1	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°	272.1	272.1	272.1	272.1	272.1
2.5°	268.6	272.5	270.0	270.3	270.7
5°	261.8	266.1	266.1	268.9	271.8
7.5°	251.4	256.4	260.0	265.0	268.9
10°	238.9	245.0	250.0	258.9	264.3
12.5°	225.3	232.8	239.2	251.0	258.5
15°	210.3	218.8	226.7	241.7	251.4
17.5°	194.2	202.8	213.1	230.6	242.4
20°	178.4	187.0	198.8	218.5	232.8
22.5°	162.0	170.9	183.4	205.3	222.1
25°	145.2	154.1	168.1	192.0	210.6
27.5°	128.4	137.3	153.1	179.2	199.5
30°	111.6	120.5	137.3	165.2	188.1
32.5°	94.8	104.4	121.9	152.3	176.7
35°	77.2	87.6	106.9	139.1	166.3
37.5°	61.1	70.8	92.6	127.7	155.9
40°	45.1	55.4	78.0	116.6	144.8
42.5°	29.3	40.4	64.7	104.4	132.3
45°	15.7	25.4	53.6	91.9	119.1
47.5°	8.6	13.9	43.3	78.7	105.5
50°	6.8	7.9	33.6	67.2	92.3
52.5°	5.7	6.4	24.0	56.5	77.6
55°	4.6	5.7	16.4	45.1	63.7
57.5°	3.9	5.0	12.9	35.0	49.7
60°	2.9	4.3	12.2	25.7	36.5
62.5°	2.1	4.6	10.7	17.9	24.0
65°	1.8	5.4	8.9	11.8	12.9
67.5°	1.4	5.7	7.9	7.5	7.5
70°	1.4	5.4	6.8	6.4	6.8
72.5°	1.4	5.7	6.1	5.7	6.1
75°	1.4	5.4	5.4	5.4	5.4
77.5°	1.4	5.0	5.0	4.6	4.6
80°	1.4	4.3	4.3	4.3	3.9
82.5°	1.4	3.9	3.9	3.9	3.2
85°	1.4	3.6	3.6	3.6	2.9
87.5°	1.1	3.2	3.6	3.2	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	10.63	11.89	11.00	12.20	12.52
	3H	0.00	0.00	0.00	0.15	0.51	10.71	11.83	11.09	12.16	12.52
	4H	0.00	0.84	0.21	1.19	1.57	10.79	11.83	11.20	12.18	12.56
	6H	0.78	1.73	1.20	2.10	2.50	10.89	11.84	11.31	12.21	12.61
	8H	1.26	2.15	1.69	2.54	2.95	10.95	11.85	11.38	12.24	12.65
	12H	1.80	2.66	2.24	3.05	3.48	11.03	11.89	11.47	12.28	12.71
4H	2H	0.00	0.65	0.02	1.00	1.39	10.49	11.52	10.89	11.87	12.26
	3H	1.95	2.79	2.36	3.20	3.60	10.66	11.51	11.08	11.91	12.32
	4H	3.33	4.09	3.77	4.51	4.95	10.82	11.57	11.25	11.99	12.44
	6H	4.41	5.06	4.87	5.51	5.98	11.04	11.69	11.50	12.14	12.61
	8H	4.86	5.47	5.33	5.91	6.39	11.16	11.77	11.63	12.22	12.69
	12H	5.34	5.88	5.83	6.36	6.84	11.34	11.88	11.83	12.36	12.84
8H	4H	4.31	4.92	4.78	5.37	5.84	10.81	11.42	11.29	11.87	12.34
	6H	5.82	6.32	6.33	6.82	7.30	11.15	11.65	11.65	12.15	12.63
	8H	6.58	7.03	7.11	7.55	8.04	11.38	11.83	11.90	12.34	12.84
	12H	7.39	7.78	7.90	8.28	8.85	11.72	12.12	12.23	12.61	13.18
12H	4H	4.48	5.02	4.97	5.51	5.98	10.80	11.34	11.29	11.82	12.30
	6H	6.14	6.58	6.66	7.10	7.59	11.17	11.62	11.69	12.13	12.63
	8H	7.08	7.48	7.60	7.97	8.55	11.47	11.87	11.99	12.37	12.94