

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: P1059231

Luminaire Tested: S123RDRP-S340D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059231
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: S123RDRP-S340D940-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

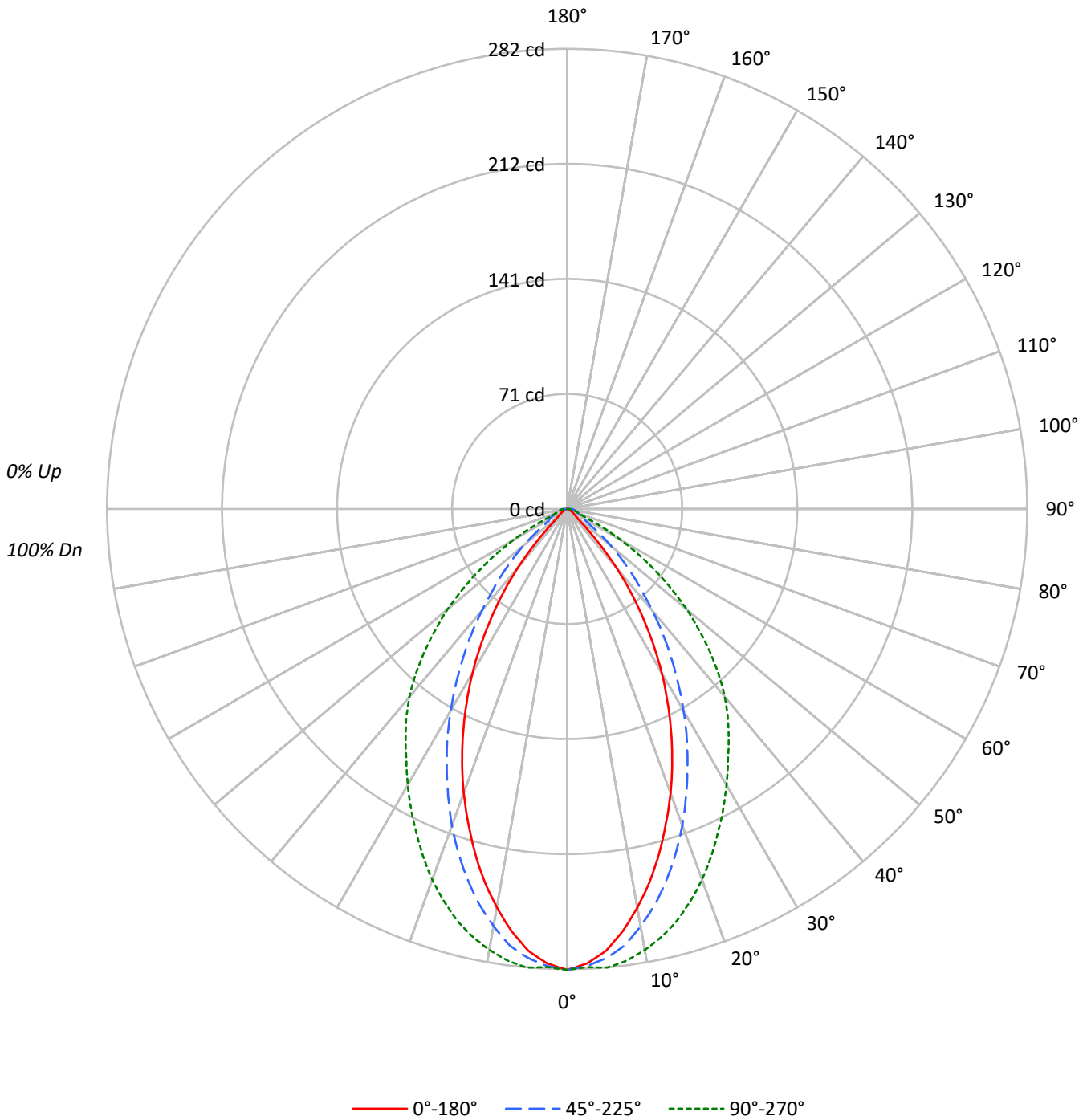
Lumens per Lamp: N/A
Luminaire Lumens: 339.2 lumens
Efficiency: N/A
Efficacy: 27.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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°	3317	3317	3317
5°	3204	3256	3326
10°	2957	3094	3272
15°	2654	2862	3173
20°	2316	2579	3020
25°	1953	2261	2834
30°	1570	1934	2648
35°	1150	1591	2474
40°	717	1240	2305
45°	271	925	2053
50°	130	638	1750
55°	98	350	1353
60°	70	296	890
65°	53	258	372
70°	51	244	244
75°	68	254	254
80°	101	304	277
85°	202	498	404

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2053 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.9	7.6
10°-20°	66.5	19.6
20°-30°	82.3	24.3
30°-40°	73.8	21.8
40°-50°	48.4	14.3
50°-60°	24.2	7.1
60°-70°	9.5	2.8
70°-80°	5.3	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°	174.8	51.5
0°-40°	248.6	73.3
0°-60°	321.2	94.7
0°-90°	339.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	339.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	282	282	282	282	282	
5°	272	276	276	279	282	25
15°	218	227	235	251	261	61
25°	151	160	174	199	219	69
35°	80	91	111	144	173	50
45°	16	26	56	95	124	16
55°	5	6	17	47	66	4
65°	2	6	9	12	13	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°	282.5	282.5	282.5	282.5	282.5
2.5°	278.8	282.9	280.3	280.7	281.0
5°	271.8	276.2	276.2	279.2	282.2
7.5°	261.0	266.2	269.9	275.1	279.2
10°	248.0	254.3	259.5	268.8	274.4
12.5°	233.9	241.7	248.4	260.6	268.4
15°	218.3	227.2	235.4	251.0	261.0
17.5°	201.6	210.5	221.3	239.5	251.7
20°	185.3	194.2	206.4	226.8	241.7
22.5°	168.2	177.5	190.5	213.1	230.6
25°	150.7	160.0	174.5	199.4	218.7
27.5°	133.3	142.6	158.9	186.0	207.2
30°	115.8	125.1	142.6	171.5	195.3
32.5°	98.4	108.4	126.6	158.2	183.4
35°	80.2	91.0	111.0	144.4	172.6
37.5°	63.5	73.5	96.2	132.5	161.9
40°	46.8	57.5	80.9	121.0	150.4
42.5°	30.4	42.0	67.2	108.4	137.4
45°	16.3	26.4	55.7	95.4	123.6
47.5°	8.9	14.5	44.9	81.7	109.5
50°	7.1	8.2	34.9	69.8	95.8
52.5°	5.9	6.7	24.9	58.7	80.6
55°	4.8	5.9	17.1	46.8	66.1
57.5°	4.1	5.2	13.4	36.4	51.6
60°	3.0	4.5	12.6	26.7	37.9
62.5°	2.2	4.8	11.1	18.6	24.9
65°	1.9	5.6	9.3	12.3	13.4
67.5°	1.5	5.9	8.2	7.8	7.8
70°	1.5	5.6	7.1	6.7	7.1
72.5°	1.5	5.9	6.3	5.9	6.3
75°	1.5	5.6	5.6	5.6	5.6
77.5°	1.5	5.2	5.2	4.8	4.8
80°	1.5	4.5	4.5	4.5	4.1
82.5°	1.5	4.1	4.1	4.1	3.3
85°	1.5	3.7	3.7	3.7	3.0
87.5°	1.1	3.3	3.7	3.3	2.2
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	10.77	12.03	11.14	12.34	12.66
	3H	0.00	0.00	0.00	0.30	0.67	10.85	11.96	11.23	12.30	12.66
	4H	0.00	1.01	0.38	1.36	1.74	10.93	11.97	11.34	12.32	12.70
	6H	0.97	1.92	1.39	2.29	2.69	11.04	11.98	11.45	12.36	12.75
	8H	1.46	2.36	1.89	2.75	3.15	11.09	11.99	11.52	12.38	12.79
	12H	2.02	2.88	2.45	3.26	3.69	11.17	12.03	11.61	12.41	12.85
4H	2H	0.00	0.82	0.19	1.17	1.55	10.63	11.66	11.03	12.01	12.40
	3H	2.10	2.94	2.51	3.35	3.75	10.80	11.65	11.22	12.05	12.46
	4H	3.48	4.23	3.91	4.65	5.10	10.96	11.71	11.39	12.13	12.58
	6H	4.57	5.22	5.04	5.67	6.14	11.18	11.83	11.65	12.28	12.75
	8H	5.03	5.64	5.50	6.09	6.56	11.30	11.91	11.78	12.36	12.83
	12H	5.53	6.07	6.01	6.55	7.02	11.48	12.02	11.97	12.50	12.98
8H	4H	4.45	5.06	4.92	5.51	5.98	10.95	11.56	11.42	12.01	12.48
	6H	5.98	6.48	6.49	6.98	7.46	11.29	11.79	11.80	12.29	12.77
	8H	6.76	7.21	7.28	7.73	8.22	11.52	11.97	12.05	12.49	12.98
	12H	7.56	7.96	8.08	8.45	9.03	11.86	12.26	12.38	12.75	13.33
12H	4H	4.63	5.17	5.12	5.65	6.13	10.94	11.48	11.43	11.96	12.44
	6H	6.30	6.75	6.82	7.27	7.76	11.31	11.76	11.84	12.28	12.77
	8H	7.26	7.66	7.77	8.15	8.72	11.62	12.02	12.14	12.52	13.09