

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: P1059234

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059234
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: S123RDRP-S340D940-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

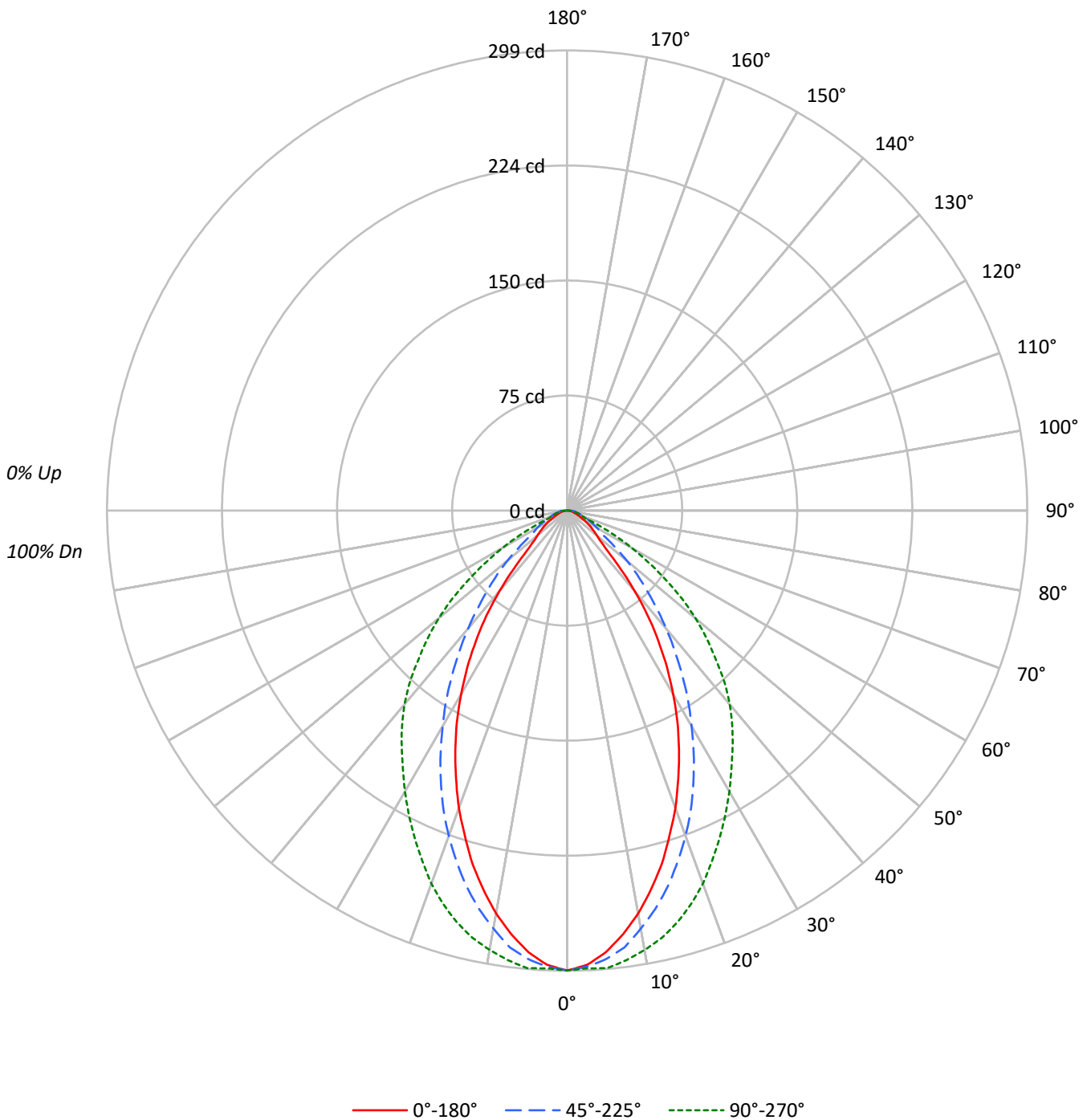
Lumens per Lamp: N/A
Luminaire Lumens: 401.1 lumens
Efficiency: N/A
Efficacy: 32.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3509	3509	3509
5°	3395	3448	3517
10°	3169	3289	3457
15°	2888	3073	3366
20°	2569	2810	3224
25°	2227	2515	3040
30°	1867	2194	2858
35°	1479	1868	2686
40°	1047	1536	2520
45°	616	1214	2268
50°	460	923	1988
55°	387	622	1595
60°	315	531	1134
65°	247	453	597
70°	216	395	371
75°	204	372	354
80°	203	399	352
85°	256	606	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2268 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.5	6.9
10°-20°	71.5	17.8
20°-30°	91.0	22.7
30°-40°	85.6	21.3
40°-50°	61.7	15.4
50°-60°	35.6	8.9
60°-70°	16.3	4.1
70°-80°	8.1	2.0
80°-90°	3.8	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°	190.0	47.4
0°-40°	275.6	68.7
0°-60°	372.9	93.0
0°-90°	401.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	401.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	299	299	299	299	299	
5°	288	293	292	296	298	27
15°	238	246	253	267	277	66
25°	172	181	194	216	235	79
35°	103	112	130	160	187	64
45°	37	46	73	110	137	31
55°	19	20	30	58	78	17
65°	9	13	16	18	22	9
75°	4	8	8	8	8	5
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	298.8	298.8	298.8	298.8	298.8
2.5°	295.5	299.2	296.6	296.9	297.7
5°	288.0	292.9	292.5	295.5	298.4
7.5°	277.6	283.2	286.2	290.6	294.7
10°	265.8	272.1	275.8	283.9	289.9
12.5°	252.0	260.2	265.0	275.8	284.3
15°	237.6	246.1	252.8	266.9	276.9
17.5°	221.2	230.5	239.0	255.7	268.0
20°	205.6	214.5	224.9	243.1	258.0
22.5°	188.6	198.2	210.1	229.4	246.1
25°	171.9	180.8	194.1	215.7	234.6
27.5°	155.2	164.1	178.2	201.9	222.7
30°	137.7	147.0	161.8	188.2	210.8
32.5°	120.6	129.5	146.2	174.8	198.6
35°	103.2	112.1	130.3	160.3	187.4
37.5°	86.1	95.4	114.7	148.5	176.3
40°	68.3	78.3	100.2	136.2	164.4
42.5°	51.6	62.4	85.7	123.6	151.4
45°	37.1	46.4	73.1	109.9	136.6
47.5°	29.0	33.8	61.6	95.8	122.9
50°	25.2	26.0	50.5	82.8	108.8
52.5°	21.9	22.6	39.7	70.5	93.9
55°	18.9	19.7	30.4	57.9	77.9
57.5°	16.0	17.1	25.2	46.0	62.7
60°	13.4	14.8	22.6	35.3	48.3
62.5°	10.8	13.4	19.3	26.0	34.5
65°	8.9	12.6	16.3	18.2	21.5
67.5°	7.4	11.5	13.7	13.0	12.6
70°	6.3	10.4	11.5	10.4	10.8
72.5°	5.2	9.7	9.7	8.9	8.9
75°	4.5	8.5	8.2	7.8	7.8
77.5°	3.7	7.4	7.1	6.7	6.3
80°	3.0	5.9	5.9	5.6	5.2
82.5°	2.6	4.8	4.8	4.8	4.1
85°	1.9	4.1	4.5	4.1	3.3
87.5°	1.5	3.7	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	4.34	5.66	4.71	5.97	6.29	11.69	13.01	12.06	13.32	13.64
	3H	5.72	6.89	6.10	7.22	7.59	11.92	13.09	12.30	13.42	13.79
	4H	6.28	7.37	6.68	7.72	8.10	12.04	13.13	12.44	13.48	13.86
	6H	6.71	7.71	7.13	8.08	8.48	12.15	13.15	12.57	13.52	13.92
	8H	6.89	7.84	7.32	8.23	8.63	12.20	13.15	12.63	13.54	13.95
	12H	7.05	7.96	7.48	8.34	8.77	12.26	13.17	12.70	13.55	13.98
4H	2H	5.43	6.53	5.84	6.88	7.26	11.65	12.74	12.05	13.09	13.47
	3H	7.10	7.99	7.51	8.39	8.80	12.01	12.90	12.42	13.31	13.71
	4H	7.90	8.70	8.34	9.12	9.57	12.21	13.01	12.64	13.43	13.87
	6H	8.54	9.23	9.00	9.67	10.14	12.44	13.13	12.90	13.57	14.04
	8H	8.77	9.42	9.24	9.86	10.34	12.54	13.19	13.01	13.63	14.10
	12H	8.99	9.56	9.48	10.04	10.52	12.67	13.24	13.15	13.72	14.20
8H	4H	8.35	9.00	8.82	9.44	9.91	12.25	12.89	12.72	13.34	13.81
	6H	9.25	9.78	9.76	10.28	10.76	12.58	13.11	13.08	13.60	14.08
	8H	9.67	10.15	10.19	10.66	11.15	12.77	13.24	13.29	13.76	14.25
	12H	10.09	10.52	10.61	11.01	11.58	13.01	13.44	13.53	13.93	14.50
12H	4H	8.41	8.98	8.89	9.46	9.94	12.24	12.81	12.72	13.29	13.76
	6H	9.39	9.86	9.91	10.38	10.87	12.59	13.07	13.11	13.58	14.08
	8H	9.92	10.35	10.44	10.84	11.41	12.85	13.27	13.36	13.76	14.34