

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: P1059235

Luminaire Tested: S123RDRP-S340D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059235
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

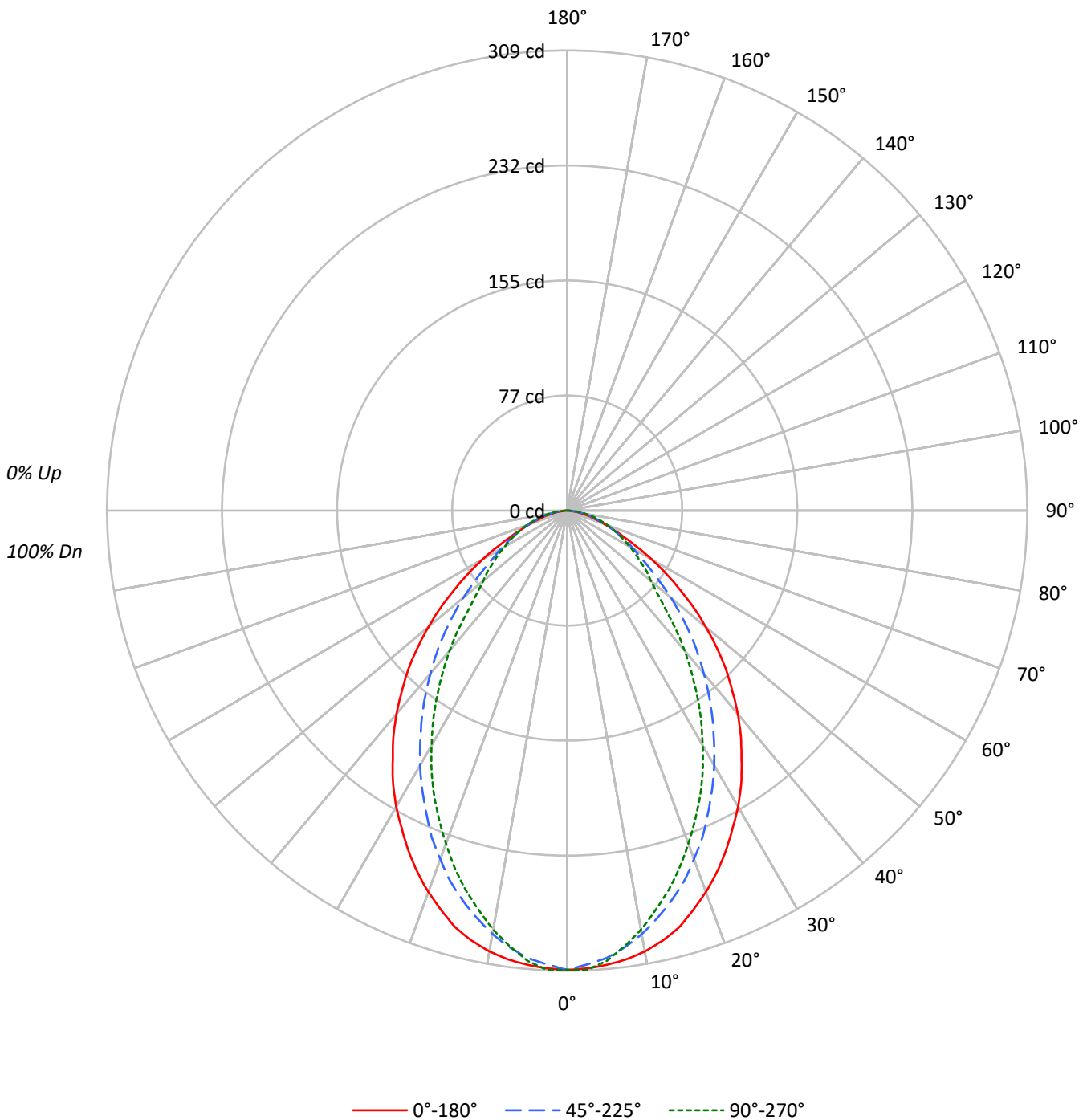
Lumens per Lamp: N/A
Luminaire Lumens: 539.4 lumens
Efficiency: N/A
Efficacy: 43.2 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3621	3621	3621
5°	3609	3556	3579
10°	3584	3444	3408
15°	3524	3294	3204
20°	3405	3113	2974
25°	3266	2901	2738
30°	3112	2679	2468
35°	2927	2438	2185
40°	2733	2187	1881
45°	2506	1933	1544
50°	2221	1659	1341
55°	1890	1388	1230
60°	1541	1209	1141
65°	1175	1072	1061
70°	917	954	992
75°	740	857	926
80°	555	703	852
85°	296	445	754

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2506 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.6	5.3
10°-20°	77.0	14.3
20°-30°	104.7	19.4
30°-40°	108.5	20.1
40°-50°	91.5	17.0
50°-60°	65.0	12.0
60°-70°	39.7	7.4
70°-80°	19.8	3.7
80°-90°	4.5	0.8
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°	210.4	39.0
0°-40°	318.9	59.1
0°-60°	475.4	88.1
0°-90°	539.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	539.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	308	308	308	308	308	
5°	306	306	302	304	304	29
15°	290	284	271	266	264	81
25°	252	241	224	216	211	116
35°	204	189	170	158	152	128
45°	151	135	116	100	93	116
55°	92	83	68	62	60	83
65°	42	41	39	39	38	43
75°	16	17	19	20	20	18
85°	2	3	3	5	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	308.4	308.4	308.4	308.4	308.4
2.5°	307.7	308.0	305.1	308.4	308.8
5°	306.2	306.2	301.7	303.6	303.6
7.5°	304.0	303.2	295.8	295.8	295.1
10°	300.6	298.4	288.8	286.9	285.8
12.5°	295.8	292.1	280.2	276.9	274.7
15°	289.9	284.3	271.0	266.2	263.6
17.5°	281.3	275.8	261.0	254.3	251.3
20°	272.5	264.3	249.1	242.4	238.0
22.5°	262.8	252.4	237.6	229.5	224.6
25°	252.1	240.9	223.9	215.7	211.3
27.5°	240.6	228.3	210.9	201.7	197.2
30°	229.5	215.4	197.6	187.2	182.0
32.5°	217.6	201.7	183.5	172.7	167.5
35°	204.2	188.7	170.1	158.3	152.4
37.5°	191.6	175.7	156.4	143.8	137.2
40°	178.3	162.4	142.7	129.7	122.7
42.5°	164.2	149.0	129.7	114.5	107.9
45°	150.9	134.9	116.4	100.5	93.0
47.5°	136.4	121.6	103.4	87.1	81.9
50°	121.6	107.9	90.8	76.0	73.4
52.5°	107.1	95.6	78.2	68.6	67.5
55°	92.3	82.7	67.8	61.9	60.1
57.5°	78.6	71.5	58.2	55.2	54.5
60°	65.6	59.7	51.5	49.7	48.6
62.5°	53.0	49.7	44.9	44.1	43.4
65°	42.3	40.8	38.6	38.6	38.2
67.5°	33.4	33.4	33.0	33.7	33.4
70°	26.7	27.1	27.8	28.5	28.9
72.5°	21.1	22.2	23.0	24.1	24.5
75°	16.3	17.4	18.9	19.6	20.4
77.5°	11.9	13.0	14.5	15.6	16.3
80°	8.2	8.9	10.4	11.9	12.6
82.5°	5.2	5.6	6.7	8.2	8.9
85°	2.2	2.6	3.3	4.8	5.6
87.5°	0.0	0.0	0.4	1.5	2.6
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	13.28	14.73	13.64	15.04	15.36	11.37	12.82	11.74	13.14	13.45
	3H	14.18	15.47	14.56	15.80	16.16	12.95	14.24	13.33	14.57	14.93
	4H	14.46	15.67	14.86	16.02	16.40	13.54	14.76	13.94	15.11	15.49
	6H	14.61	15.73	15.02	16.10	16.49	13.99	15.11	14.41	15.48	15.87
	8H	14.63	15.70	15.06	16.09	16.49	14.14	15.21	14.57	15.60	16.00
	12H	14.63	15.64	15.06	16.03	16.46	14.24	15.26	14.68	15.64	16.07
4H	2H	13.52	14.73	13.92	15.08	15.46	11.92	13.13	12.32	13.48	13.86
	3H	14.64	15.64	15.05	16.04	16.44	13.69	14.69	14.10	15.09	15.49
	4H	15.03	15.93	15.46	16.34	16.78	14.40	15.30	14.84	15.72	16.16
	6H	15.27	16.05	15.73	16.49	16.95	14.97	15.75	15.43	16.20	16.66
	8H	15.31	16.04	15.78	16.49	16.96	15.17	15.89	15.63	16.34	16.81
	12H	15.32	15.97	15.81	16.45	16.92	15.31	15.95	15.79	16.43	16.91
8H	4H	15.19	15.91	15.65	16.36	16.83	14.61	15.34	15.08	15.78	16.25
	6H	15.50	16.10	16.00	16.59	17.07	15.29	15.89	15.79	16.38	16.86
	8H	15.58	16.11	16.09	16.63	17.12	15.55	16.09	16.07	16.60	17.09
	12H	15.61	16.09	16.12	16.58	17.15	15.76	16.23	16.27	16.73	17.29
12H	4H	15.19	15.84	15.67	16.32	16.79	14.61	15.26	15.09	15.74	16.21
	6H	15.51	16.05	16.03	16.56	17.05	15.30	15.84	15.82	16.35	16.84
	8H	15.63	16.10	16.14	16.60	17.16	15.60	16.08	16.12	16.57	17.14