

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: P1059229

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059229
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
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-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

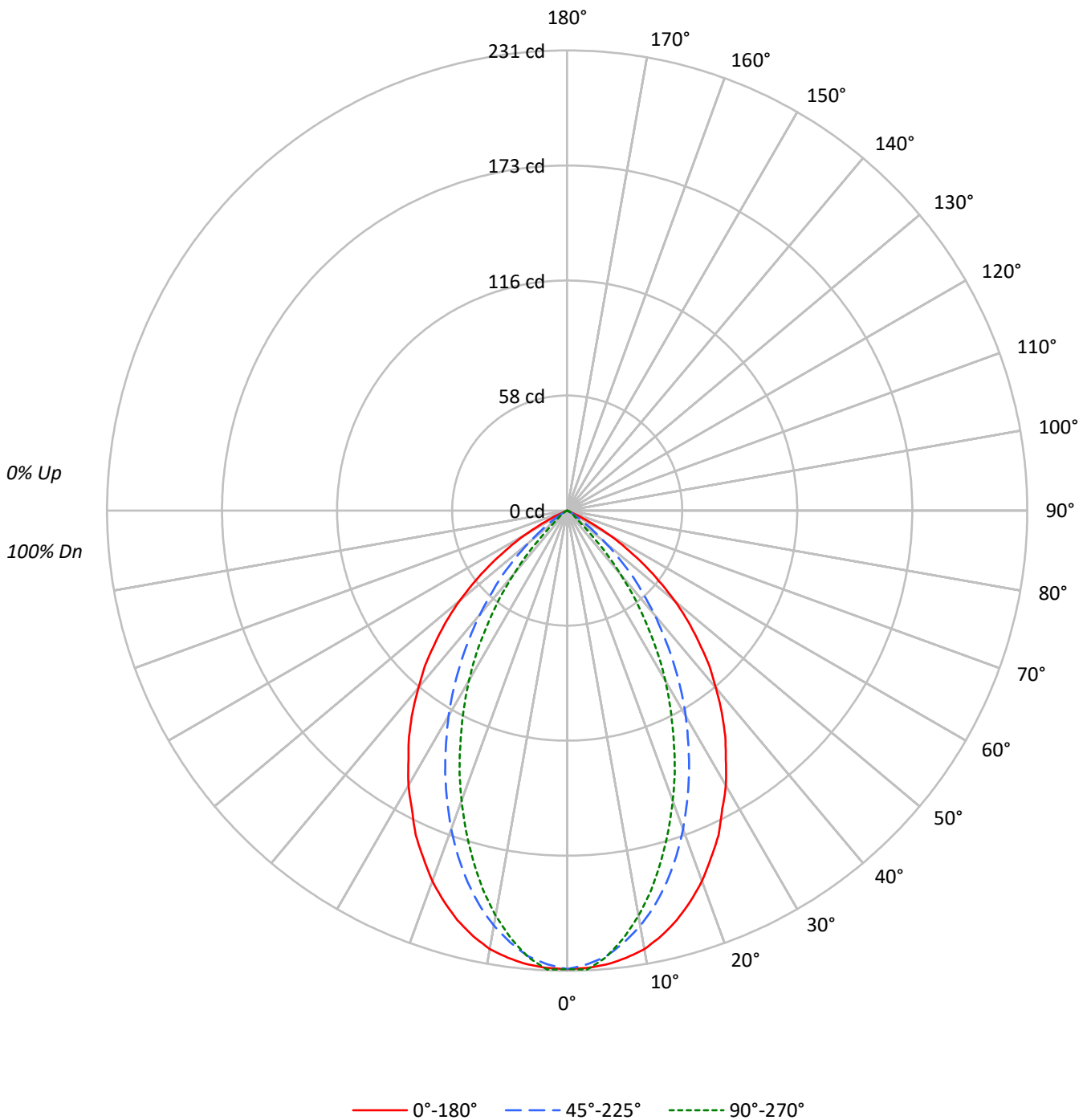
Lumens per Lamp: N/A
Luminaire Lumens: 262.7 lumens
Efficiency: N/A
Efficacy: 21.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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					100			
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94					92				
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85					84				
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78					76				
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71					69				
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65					63				
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60					58				
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55					53				
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51					49				
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47					46				
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44					42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2703	2703	2703
5°	2696	2647	2652
10°	2665	2523	2462
15°	2587	2347	2213
20°	2473	2126	1936
25°	2330	1877	1638
30°	2161	1614	1337
35°	1983	1333	993
40°	1778	1045	636
45°	1551	764	264
50°	1286	453	102
55°	948	190	76
60°	575	70	45
65°	156	42	19
70°	0	14	14
75°	0	0	18
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1551 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.2	8.1
10°-20°	54.7	20.8
20°-30°	68.2	25.9
30°-40°	60.9	23.2
40°-50°	38.5	14.6
50°-60°	16.1	6.1
60°-70°	3.0	1.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	144.0	54.8
0°-40°	205.0	78.0
0°-60°	259.5	98.8
0°-90°	262.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	262.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	230	230	230	230	230	
5°	229	228	225	225	225	22
15°	213	208	193	185	182	60
25°	180	165	145	132	126	82
35°	138	118	93	76	69	86
45°	93	73	46	24	16	72
55°	46	32	9	4	4	41
65°	6	4	2	1	1	8
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	230.2	230.2	230.2	230.2	230.2
2.5°	229.8	230.2	228.0	230.2	230.6
5°	228.7	228.3	224.6	225.4	225.0
7.5°	226.5	225.4	218.7	217.2	216.5
10°	223.5	220.5	211.6	207.9	206.5
12.5°	218.7	214.6	203.1	197.2	195.0
15°	212.8	207.6	193.1	185.0	182.0
17.5°	205.7	198.3	182.0	173.1	168.7
20°	197.9	187.6	170.1	159.4	154.9
22.5°	188.7	177.2	157.5	146.0	141.2
25°	179.8	165.3	144.9	132.3	126.4
27.5°	168.7	153.5	131.6	118.6	112.3
30°	159.4	142.0	119.0	104.5	98.6
32.5°	148.3	130.1	106.0	90.1	84.5
35°	138.3	118.2	93.0	76.4	69.3
37.5°	127.5	106.8	80.1	62.6	56.0
40°	116.0	95.3	68.2	48.9	41.5
42.5°	105.6	83.8	56.3	36.3	28.9
45°	93.4	72.6	46.0	24.5	15.9
47.5°	82.3	62.3	34.8	13.7	8.5
50°	70.4	51.5	24.8	7.0	5.6
52.5°	58.2	41.1	16.3	4.8	4.4
55°	46.3	31.9	9.3	3.7	3.7
57.5°	34.8	23.0	4.8	3.0	2.6
60°	24.5	15.2	3.0	2.2	1.9
62.5°	14.1	8.9	2.2	1.5	1.5
65°	5.6	4.1	1.5	0.7	0.7
67.5°	0.4	1.1	0.7	0.4	0.4
70°	0.0	0.0	0.4	0.4	0.4
72.5°	0.0	0.0	0.4	0.4	0.4
75°	0.0	0.0	0.0	0.0	0.4
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	8.65	9.82	9.01	10.14	10.45	0.00	0.00	0.00	0.00	0.00
	3H	8.49	9.52	8.87	9.85	10.22	0.00	0.00	0.00	0.00	0.00
	4H	8.40	9.36	8.81	9.71	10.09	0.00	0.00	0.00	0.00	0.00
	6H	8.31	9.18	8.73	9.55	9.95	0.00	0.00	0.00	0.00	0.00
	8H	8.26	9.08	8.69	9.47	9.88	0.00	0.00	0.00	0.00	0.00
	12H	8.21	8.99	8.64	9.38	9.81	0.00	0.00	0.00	0.00	0.00
4H	2H	8.41	9.36	8.81	9.71	10.10	0.00	0.00	0.00	0.00	0.00
	3H	8.24	9.01	8.66	9.42	9.82	0.00	0.00	0.00	0.00	0.00
	4H	8.14	8.82	8.57	9.24	9.69	0.00	0.00	0.00	0.00	0.00
	6H	8.04	8.62	8.51	9.07	9.54	0.00	0.00	0.00	0.00	0.00
	8H	7.98	8.52	8.45	8.97	9.44	0.00	0.00	0.00	0.00	0.00
	12H	7.92	8.39	8.41	8.88	9.36	0.00	0.00	0.00	0.00	0.00
8H	4H	7.98	8.52	8.45	8.97	9.44	0.00	0.00	0.00	0.00	0.00
	6H	7.86	8.30	8.37	8.80	9.28	0.00	0.00	0.00	0.00	0.00
	8H	7.79	8.18	8.31	8.70	9.20	0.00	0.00	0.00	0.00	0.00
	12H	7.73	8.08	8.25	8.58	9.16	0.00	0.00	0.00	0.00	0.00
12H	4H	7.92	8.39	8.41	8.88	9.36	0.00	0.00	0.00	0.00	0.00
	6H	7.79	8.18	8.32	8.70	9.20	0.00	0.00	0.00	0.00	0.00
	8H	7.73	8.08	8.25	8.58	9.16	0.00	0.00	0.00	0.00	0.00