

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: P1059190

Luminaire Tested: S123RDRP-S340D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059190
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-S340D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

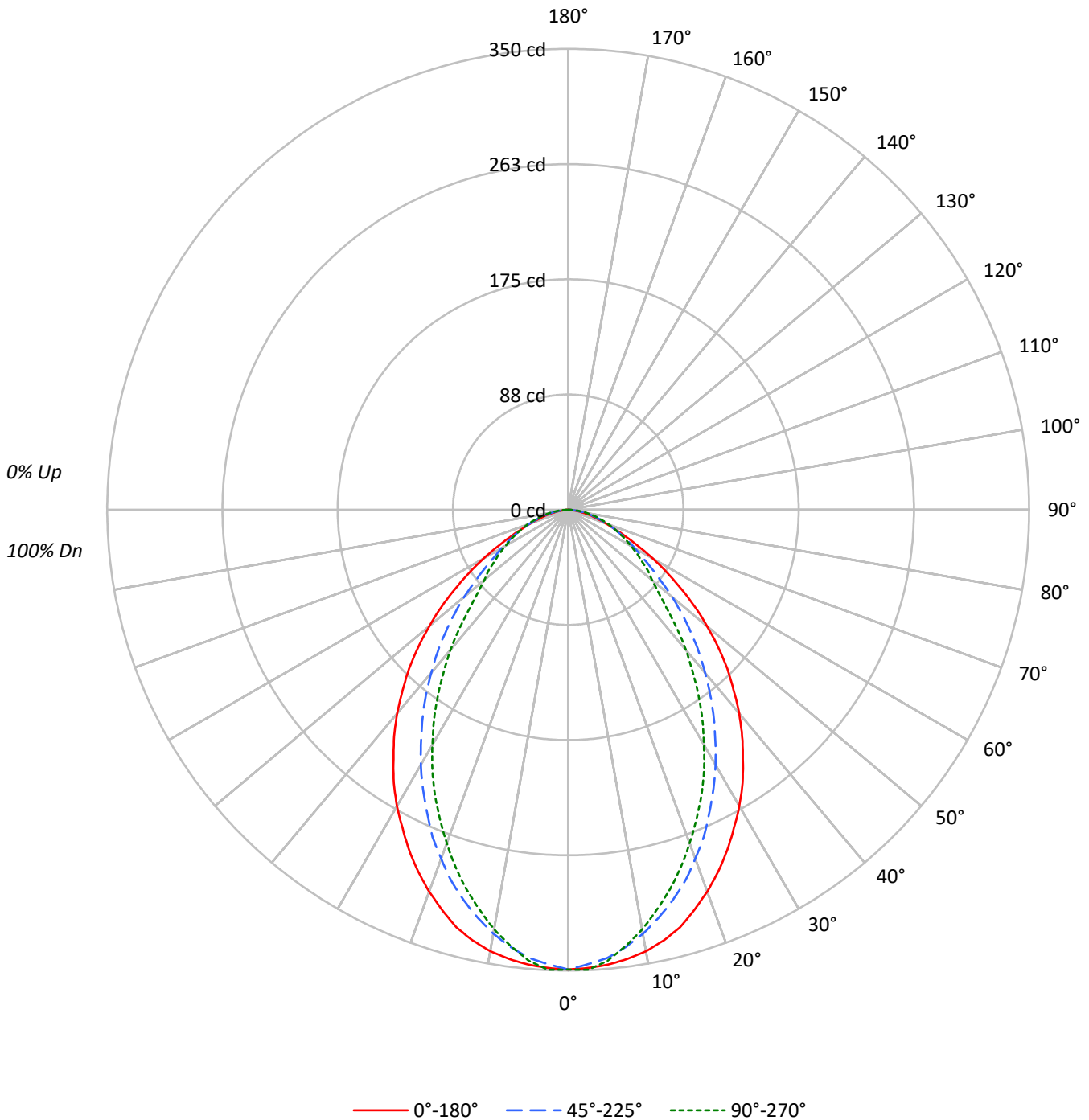
Lumens per Lamp: N/A
Luminaire Lumens: 610.9 lumens
Efficiency: N/A
Efficacy: 48.9 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: S123RDRP-S340D840-X4F0-XX-UDD-WVL-B

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°	4102	4102	4102
5°	4088	4028	4052
10°	4060	3899	3860
15°	3991	3731	3629
20°	3856	3525	3368
25°	3699	3286	3100
30°	3524	3035	2795
35°	3316	2762	2473
40°	3095	2477	2131
45°	2838	2189	1750
50°	2516	1880	1518
55°	2139	1572	1392
60°	1745	1372	1292
65°	1331	1214	1200
70°	1037	1081	1123
75°	839	971	1048
80°	622	798	967
85°	337	512	849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2838 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.4	5.3
10°-20°	87.2	14.3
20°-30°	118.6	19.4
30°-40°	122.9	20.1
40°-50°	103.7	17.0
50°-60°	73.6	12.0
60°-70°	45.0	7.4
70°-80°	22.4	3.7
80°-90°	5.1	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°	238.2	39.0
0°-40°	361.2	59.1
0°-60°	538.5	88.1
0°-90°	610.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	610.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	349	349	349	349	349	
5°	347	347	342	344	344	33
15°	328	322	307	301	298	92
25°	286	273	254	244	239	131
35°	231	214	193	179	172	145
45°	171	153	132	114	105	131
55°	104	94	77	70	68	94
65°	48	46	44	44	43	49
75°	18	20	21	22	23	20
85°	2	3	4	6	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	349.3	349.3	349.3	349.3	349.3
2.5°	348.4	348.9	345.5	349.3	349.7
5°	346.8	346.8	341.7	343.8	343.8
7.5°	344.2	343.4	335.0	335.0	334.2
10°	340.5	337.9	327.0	324.9	323.7
12.5°	335.0	330.8	317.4	313.6	311.1
15°	328.3	322.0	306.9	301.4	298.5
17.5°	318.6	312.3	295.5	288.0	284.6
20°	308.6	299.3	282.1	274.5	269.5
22.5°	297.6	285.9	269.1	259.9	254.4
25°	285.5	272.9	253.6	244.3	239.3
27.5°	272.5	258.6	238.9	228.4	223.3
30°	259.9	243.9	223.8	212.0	206.1
32.5°	246.4	228.4	207.8	195.6	189.7
35°	231.3	213.7	192.7	179.3	172.5
37.5°	217.0	199.0	177.2	162.9	155.3
40°	201.9	183.9	161.6	146.9	139.0
42.5°	186.0	168.8	146.9	129.7	122.2
45°	170.9	152.8	131.8	113.8	105.4
47.5°	154.5	137.7	117.1	98.7	92.8
50°	137.7	122.2	102.9	86.1	83.1
52.5°	121.3	108.3	88.6	77.7	76.4
55°	104.5	93.6	76.8	70.1	68.0
57.5°	89.0	81.0	65.9	62.6	61.7
60°	74.3	67.6	58.4	56.3	55.0
62.5°	60.0	56.3	50.8	50.0	49.1
65°	47.9	46.2	43.7	43.7	43.2
67.5°	37.8	37.8	37.4	38.2	37.8
70°	30.2	30.6	31.5	32.3	32.7
72.5°	23.9	25.2	26.0	27.3	27.7
75°	18.5	19.7	21.4	22.2	23.1
77.5°	13.4	14.7	16.4	17.6	18.5
80°	9.2	10.1	11.8	13.4	14.3
82.5°	5.9	6.3	7.6	9.2	10.1
85°	2.5	2.9	3.8	5.5	6.3
87.5°	0.0	0.0	0.4	1.7	2.9
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	13.71	15.16	14.08	15.47	15.79	11.81	13.26	12.18	13.58	13.89
	3H	14.61	15.90	14.99	16.23	16.60	13.38	14.68	13.76	15.01	15.37
	4H	14.89	16.10	15.29	16.45	16.83	13.98	15.19	14.38	15.54	15.92
	6H	15.04	16.16	15.45	16.53	16.92	14.43	15.55	14.84	15.92	16.31
	8H	15.06	16.13	15.49	16.52	16.92	14.58	15.64	15.01	16.03	16.43
	12H	15.06	16.07	15.49	16.46	16.88	14.68	15.69	15.11	16.08	16.51
4H	2H	13.96	15.17	14.36	15.52	15.90	12.35	13.57	12.76	13.92	14.30
	3H	15.07	16.07	15.48	16.47	16.87	14.13	15.13	14.54	15.53	15.93
	4H	15.46	16.36	15.89	16.77	17.21	14.84	15.73	15.27	16.15	16.59
	6H	15.70	16.48	16.16	16.92	17.38	15.41	16.19	15.87	16.63	17.09
	8H	15.74	16.47	16.21	16.92	17.38	15.60	16.33	16.06	16.77	17.24
	12H	15.75	16.40	16.23	16.88	17.35	15.74	16.39	16.22	16.87	17.34
8H	4H	15.62	16.34	16.08	16.79	17.26	15.05	15.77	15.51	16.22	16.69
	6H	15.93	16.53	16.43	17.02	17.50	15.72	16.32	16.22	16.81	17.29
	8H	16.01	16.54	16.52	17.05	17.54	15.98	16.51	16.49	17.03	17.52
	12H	16.04	16.51	16.55	17.01	17.57	16.19	16.66	16.70	17.15	17.72
12H	4H	15.62	16.27	16.10	16.75	17.22	15.04	15.69	15.53	16.17	16.64
	6H	15.94	16.48	16.46	16.99	17.48	15.73	16.27	16.25	16.78	17.27
	8H	16.06	16.53	16.57	17.03	17.59	16.03	16.51	16.54	17.00	17.57