

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: P1059184

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059184
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-S340D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

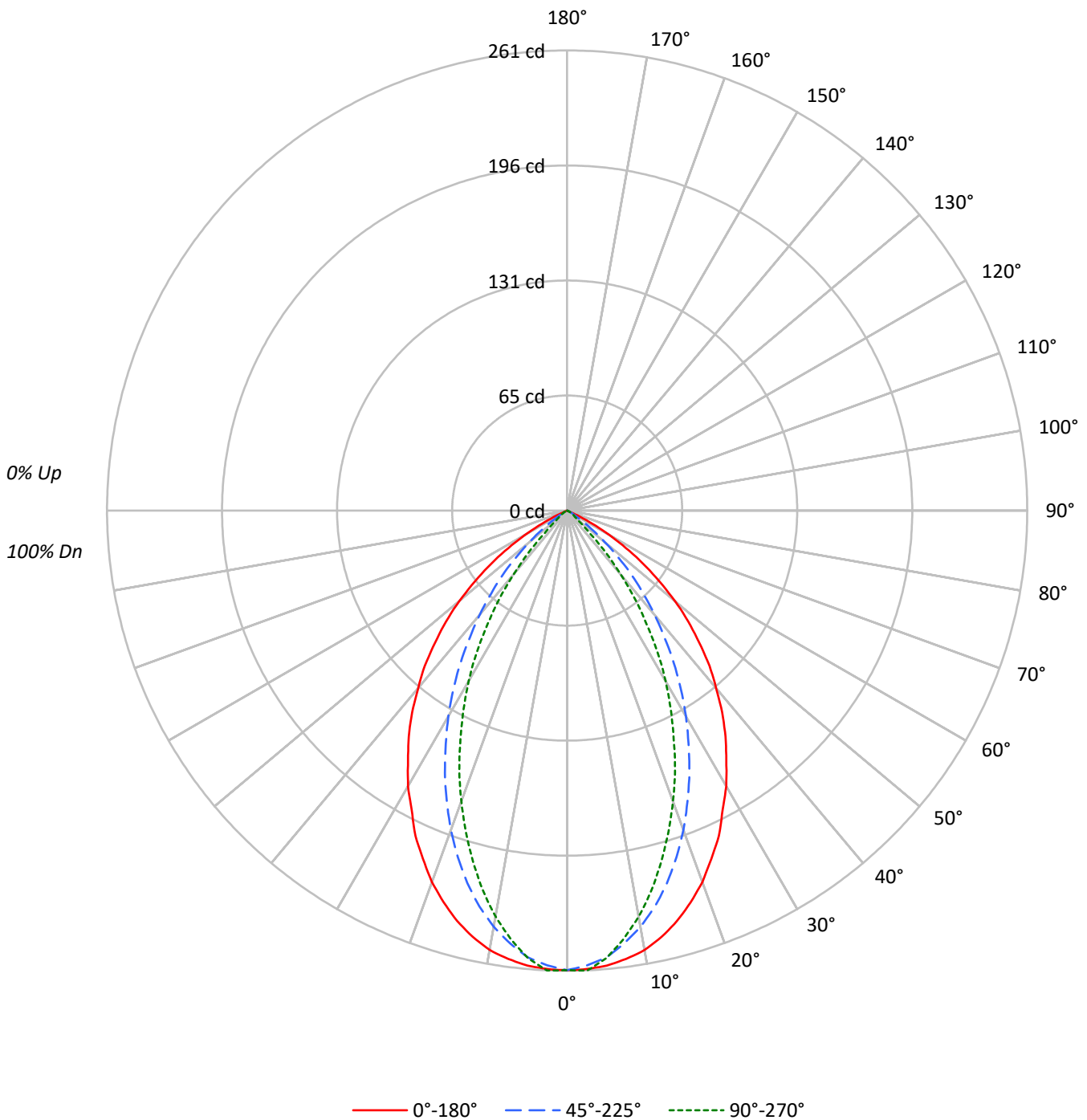
Lumens per Lamp: N/A
Luminaire Lumens: 297.5 lumens
Efficiency: N/A
Efficacy: 23.8 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (Ain): 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	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°	3061	3061	3061
5°	3053	2999	3003
10°	3018	2858	2788
15°	2930	2659	2505
20°	2802	2408	2193
25°	2638	2126	1854
30°	2447	1826	1515
35°	2245	1511	1125
40°	2014	1183	720
45°	1757	865	301
50°	1458	513	115
55°	1075	215	86
60°	651	80	49
65°	175	47	22
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: 1757 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	8.1
10°-20°	61.9	20.8
20°-30°	77.2	25.9
30°-40°	69.0	23.2
40°-50°	43.6	14.6
50°-60°	18.2	6.1
60°-70°	3.4	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°	163.1	54.8
0°-40°	232.1	78.0
0°-60°	293.9	98.8
0°-90°	297.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	297.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	261	261	261	261	261	
5°	259	259	254	255	255	25
15°	241	235	219	210	206	68
25°	204	187	164	150	143	93
35°	157	134	105	86	78	98
45°	106	82	52	28	18	82
55°	52	36	10	4	4	47
65°	6	5	2	1	1	9
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°	260.7	260.7	260.7	260.7	260.7
2.5°	260.3	260.7	258.2	260.7	261.1
5°	259.0	258.6	254.4	255.2	254.8
7.5°	256.5	255.2	247.7	246.0	245.1
10°	253.1	249.8	239.7	235.5	233.8
12.5°	247.7	243.0	230.0	223.3	220.8
15°	241.0	235.1	218.7	209.5	206.1
17.5°	233.0	224.6	206.1	196.0	191.0
20°	224.2	212.4	192.7	180.5	175.5
22.5°	213.7	200.7	178.4	165.4	159.9
25°	203.6	187.2	164.1	149.9	143.1
27.5°	191.0	173.8	149.0	134.3	127.2
30°	180.5	160.8	134.7	118.4	111.7
32.5°	167.9	147.3	120.1	102.0	95.7
35°	156.6	133.9	105.4	86.5	78.5
37.5°	144.4	120.9	90.7	70.9	63.4
40°	131.4	107.9	77.2	55.4	47.0
42.5°	119.6	94.9	63.8	41.1	32.7
45°	105.8	82.3	52.1	27.7	18.1
47.5°	93.2	70.5	39.5	15.5	9.7
50°	79.8	58.3	28.1	8.0	6.3
52.5°	65.9	46.6	18.5	5.5	5.0
55°	52.5	36.1	10.5	4.2	4.2
57.5°	39.5	26.0	5.5	3.4	2.9
60°	27.7	17.2	3.4	2.5	2.1
62.5°	16.0	10.1	2.5	1.7	1.7
65°	6.3	4.6	1.7	0.8	0.8
67.5°	0.4	1.3	0.8	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	9.07	10.25	9.44	10.56	10.88	0.00	0.00	0.00	0.00	0.00
	3H	8.91	9.95	9.30	10.28	10.64	0.00	0.00	0.00	0.00	0.00
	4H	8.83	9.78	9.23	10.13	10.52	0.00	0.00	0.00	0.00	0.00
	6H	8.74	9.61	9.15	9.98	10.38	0.00	0.00	0.00	0.00	0.00
	8H	8.69	9.51	9.12	9.90	10.31	0.00	0.00	0.00	0.00	0.00
	12H	8.64	9.42	9.07	9.80	10.23	0.00	0.00	0.00	0.00	0.00
4H	2H	8.83	9.79	9.24	10.14	10.53	0.00	0.00	0.00	0.00	0.00
	3H	8.67	9.44	9.08	9.84	10.25	0.00	0.00	0.00	0.00	0.00
	4H	8.56	9.25	9.00	9.67	10.11	0.00	0.00	0.00	0.00	0.00
	6H	8.47	9.05	8.93	9.50	9.97	0.00	0.00	0.00	0.00	0.00
	8H	8.40	8.95	8.88	9.40	9.87	0.00	0.00	0.00	0.00	0.00
	12H	8.35	8.82	8.83	9.31	9.78	0.00	0.00	0.00	0.00	0.00
8H	4H	8.40	8.95	8.88	9.40	9.87	0.00	0.00	0.00	0.00	0.00
	6H	8.29	8.73	8.79	9.23	9.71	0.00	0.00	0.00	0.00	0.00
	8H	8.21	8.61	8.74	9.13	9.62	0.00	0.00	0.00	0.00	0.00
	12H	8.16	8.51	8.68	9.01	9.58	0.00	0.00	0.00	0.00	0.00
12H	4H	8.35	8.82	8.83	9.31	9.78	0.00	0.00	0.00	0.00	0.00
	6H	8.21	8.61	8.74	9.13	9.62	0.00	0.00	0.00	0.00	0.00
	8H	8.16	8.51	8.68	9.01	9.58	0.00	0.00	0.00	0.00	0.00