

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: P1059031

Luminaire Tested: S123RDRP-S1000D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059031
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-S1000D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

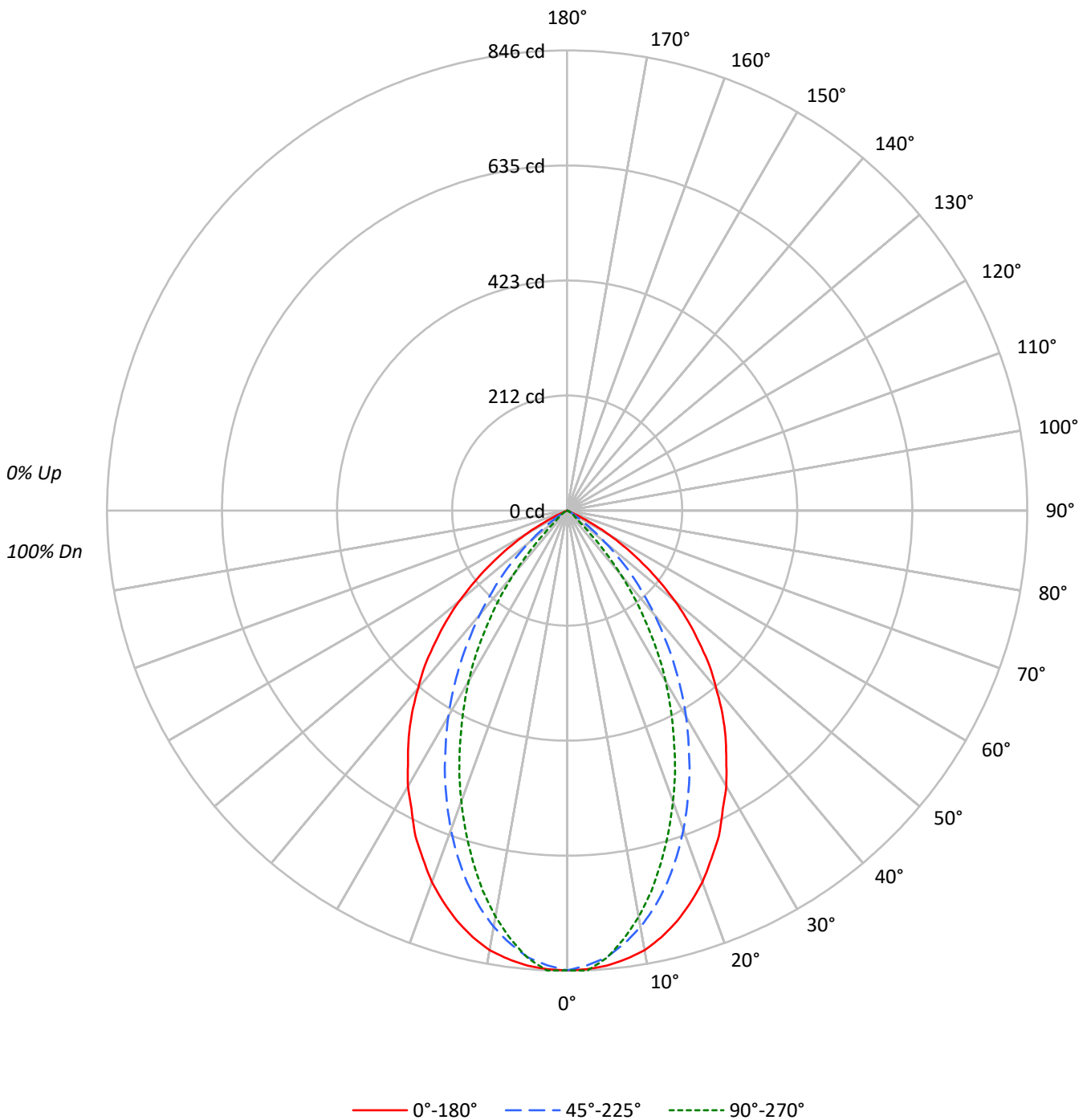
Lumens per Lamp: N/A
Luminaire Lumens: 964.5 lumens
Efficiency: N/A
Efficacy: 27.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9925	9925	9925
5°	9898	9722	9737
10°	9786	9266	9039
15°	9497	8620	8124
20°	9082	7806	7109
25°	8552	6895	6013
30°	7935	5924	4908
35°	7278	4897	3648
40°	6530	3838	2336
45°	5696	2803	971
50°	4724	1666	373
55°	3482	696	278
60°	2109	256	160
65°	567	150	75
70°	0	48	48
75°	0	0	64
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5696 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	8.1
10°-20°	200.8	20.8
20°-30°	250.3	25.9
30°-40°	223.8	23.2
40°-50°	141.2	14.6
50°-60°	59.1	6.1
60°-70°	11.1	1.2
70°-80°	0.4	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°	528.9	54.8
0°-40°	752.6	78.0
0°-60°	953.0	98.8
0°-90°	964.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	964.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	845	845	845	845	845	
5°	840	838	825	828	826	80
15°	781	762	709	679	668	219
25°	660	607	532	486	464	302
35°	508	434	342	280	254	316
45°	343	267	169	90	58	264
55°	170	117	34	14	14	152
65°	20	15	5	3	3	29
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	845.2	845.2	845.2	845.2	845.2
2.5°	843.8	845.2	837.0	845.2	846.5
5°	839.7	838.4	824.8	827.5	826.1
7.5°	831.6	827.5	803.0	797.6	794.8
10°	820.7	809.8	777.1	763.5	758.1
12.5°	803.0	788.0	745.8	724.1	715.9
15°	781.2	762.2	709.1	679.1	668.3
17.5°	755.4	728.1	668.3	635.6	619.3
20°	726.8	688.7	624.7	585.2	568.9
22.5°	692.8	650.6	578.4	536.2	518.5
25°	660.1	607.0	532.2	485.9	464.1
27.5°	619.3	563.5	483.2	435.5	412.4
30°	585.2	521.3	436.9	383.8	362.0
32.5°	544.4	477.7	389.2	330.7	310.3
35°	507.7	434.2	341.6	280.4	254.5
37.5°	468.2	392.0	294.0	230.0	205.5
40°	426.0	349.8	250.4	179.7	152.4
42.5°	387.9	307.6	206.9	133.4	106.2
45°	343.0	266.8	168.8	89.8	58.5
47.5°	302.1	228.7	127.9	50.4	31.3
50°	258.6	189.2	91.2	25.9	20.4
52.5°	213.7	151.1	59.9	17.7	16.3
55°	170.1	117.0	34.0	13.6	13.6
57.5°	127.9	84.4	17.7	10.9	9.5
60°	89.8	55.8	10.9	8.2	6.8
62.5°	51.7	32.7	8.2	5.4	5.4
65°	20.4	15.0	5.4	2.7	2.7
67.5°	1.4	4.1	2.7	1.4	1.4
70°	0.0	0.0	1.4	1.4	1.4
72.5°	0.0	0.0	1.4	1.4	1.4
75°	0.0	0.0	0.0	0.0	1.4
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	13.16	14.34	13.53	14.65	14.97	0.00	0.00	0.00	0.00	0.00
	3H	13.00	14.04	13.39	14.37	14.73	0.00	0.00	0.00	0.00	0.00
	4H	12.92	13.87	13.32	14.23	14.61	0.00	0.00	0.00	0.00	0.00
	6H	12.83	13.70	13.24	14.07	14.47	0.00	0.00	0.00	0.00	0.00
	8H	12.78	13.60	13.21	13.99	14.40	0.00	0.00	0.00	0.00	0.00
	12H	12.73	13.51	13.16	13.89	14.33	0.00	0.00	0.00	0.00	0.00
4H	2H	12.92	13.88	13.33	14.23	14.62	0.00	0.00	0.00	0.00	0.10
	3H	12.76	13.53	13.17	13.93	14.34	0.00	0.00	0.00	0.00	0.00
	4H	12.65	13.34	13.09	13.76	14.20	0.00	0.00	0.00	0.00	0.00
	6H	12.56	13.14	13.03	13.59	14.06	0.00	0.00	0.00	0.00	0.00
	8H	12.49	13.04	12.97	13.49	13.96	0.00	0.00	0.00	0.00	0.00
	12H	12.44	12.91	12.92	13.40	13.87	0.00	0.00	0.00	0.00	0.00
8H	4H	12.49	13.04	12.97	13.49	13.96	0.00	0.00	0.00	0.00	0.00
	6H	12.38	12.82	12.88	13.32	13.80	0.00	0.00	0.00	0.00	0.00
	8H	12.30	12.70	12.83	13.22	13.71	0.00	0.00	0.00	0.00	0.00
	12H	12.25	12.60	12.77	13.10	13.67	0.00	0.00	0.00	0.00	0.00
12H	4H	12.44	12.91	12.92	13.40	13.87	0.00	0.00	0.00	0.00	0.00
	6H	12.30	12.70	12.83	13.22	13.71	0.00	0.00	0.00	0.00	0.00
	8H	12.25	12.60	12.77	13.10	13.67	0.00	0.00	0.00	0.00	0.00