

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: P1059034

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059034
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1000D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

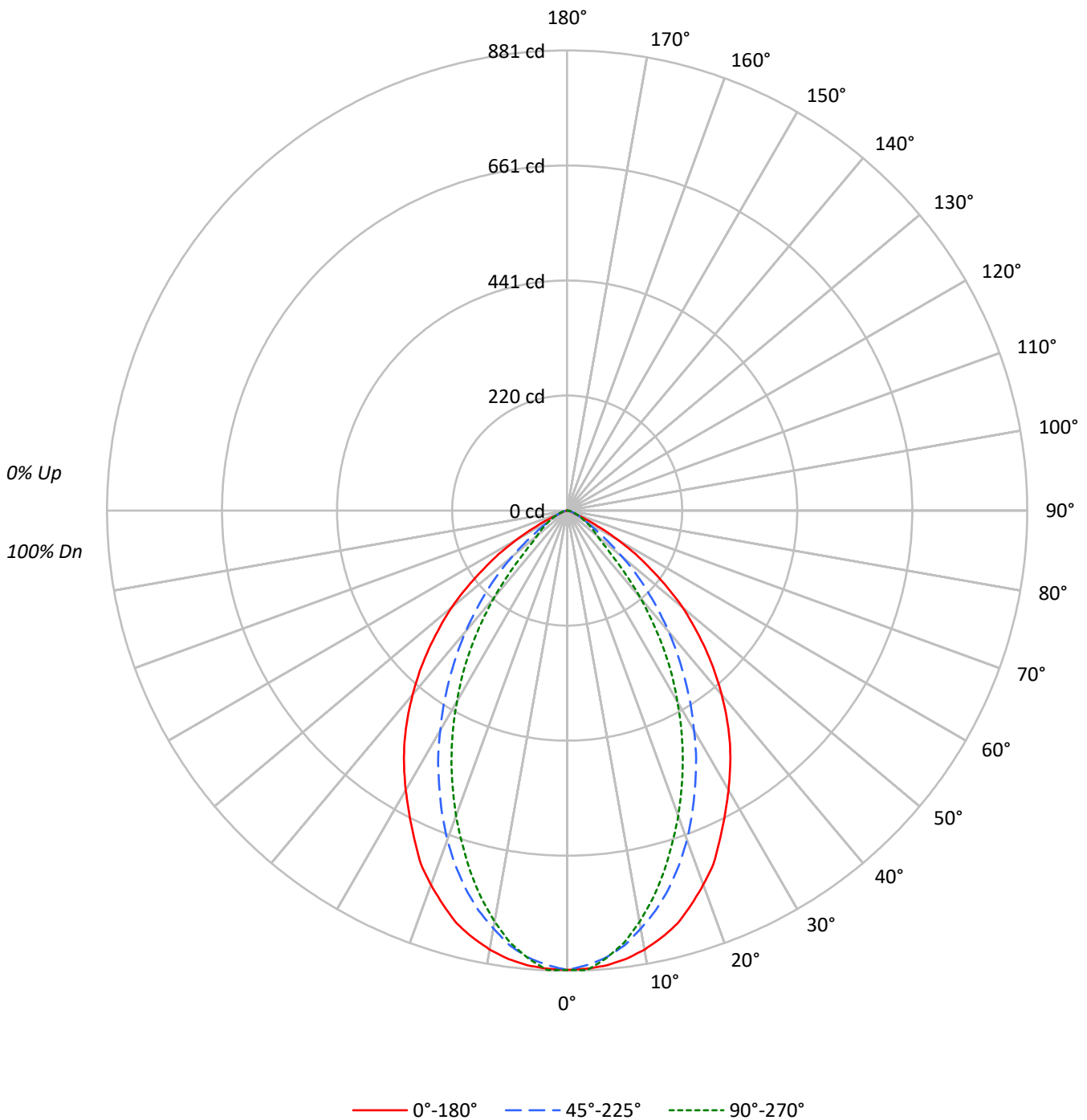
Lumens per Lamp: N/A
Luminaire Lumens: 1135.1 lumens
Efficiency: N/A
Efficacy: 32.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82					82			
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46					46			
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42					42			
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10325	10325	10325
5°	10300	10124	10139
10°	10176	9689	9527
15°	9944	9117	8703
20°	9524	8385	7773
25°	8976	7512	6789
30°	8378	6588	5721
35°	7785	5619	4604
40°	7053	4632	3339
45°	6216	3594	2011
50°	5272	2512	1368
55°	4013	1505	1142
60°	2621	958	895
65°	1098	720	720
70°	374	515	560
75°	309	372	431
80°	183	277	365
85°	189	189	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6216 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.2	7.2
10°-20°	212.5	18.7
20°-30°	272.5	24.0
30°-40°	255.7	22.5
40°-50°	178.4	15.7
50°-60°	92.3	8.1
60°-70°	31.6	2.8
70°-80°	9.0	0.8
80°-90°	1.9	0.2
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°	566.3	49.9
0°-40°	822.0	72.4
0°-60°	1092.7	96.3
0°-90°	1135.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1135.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	874	872	859	863	860	83
15°	818	798	750	726	716	229
25°	693	649	580	540	524	319
35°	543	476	392	342	321	338
45°	374	306	216	150	121	288
55°	196	147	74	57	56	176
65°	40	34	26	24	26	47
75°	7	7	8	10	10	7
85°	1	1	1	1	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	879.3	879.3	879.3	879.3	879.3
2.5°	877.9	879.3	871.1	879.3	880.6
5°	873.8	872.5	858.9	862.9	860.2
7.5°	865.7	861.6	839.8	834.4	834.4
10°	853.4	845.3	812.6	803.1	799.0
12.5°	837.1	826.2	784.0	766.3	759.5
15°	818.0	797.6	750.0	725.5	715.9
17.5°	790.8	763.6	711.9	683.3	668.3
20°	762.2	728.2	671.0	637.0	622.0
22.5°	732.3	691.4	626.1	589.4	573.0
25°	692.8	649.3	579.8	540.4	524.0
27.5°	654.7	608.4	534.9	490.0	473.7
30°	617.9	563.5	485.9	442.4	421.9
32.5°	581.2	519.9	439.6	392.0	372.9
35°	543.1	476.4	392.0	341.6	321.2
37.5°	502.3	434.2	347.1	292.6	268.1
40°	460.1	389.3	302.2	240.9	217.8
42.5°	417.9	348.4	257.3	194.6	167.4
45°	374.3	306.3	216.4	149.7	121.1
47.5°	330.8	264.1	176.9	108.9	91.2
50°	288.6	224.6	137.5	80.3	74.9
52.5°	242.3	186.5	103.4	66.7	65.3
55°	196.0	147.0	73.5	57.2	55.8
57.5°	155.2	114.3	53.1	47.6	46.3
60°	111.6	81.7	40.8	39.5	38.1
62.5°	73.5	55.8	32.7	31.3	31.3
65°	39.5	34.0	25.9	24.5	25.9
67.5°	16.3	19.1	19.1	20.4	20.4
70°	10.9	12.3	15.0	16.3	16.3
72.5°	8.2	9.5	10.9	12.3	12.3
75°	6.8	6.8	8.2	9.5	9.5
77.5°	4.1	5.4	5.4	6.8	8.2
80°	2.7	4.1	4.1	5.4	5.4
82.5°	1.4	2.7	2.7	4.1	4.1
85°	1.4	1.4	1.4	1.4	2.7
87.5°	0.0	0.0	0.0	0.0	1.4
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	14.44	15.70	14.81	16.01	16.33	7.95	9.21	8.31	9.52	9.83
	3H	14.40	15.50	14.78	15.84	16.20	8.72	9.83	9.10	10.16	10.52
	4H	14.34	15.37	14.75	15.72	16.11	8.92	9.95	9.33	10.30	10.69
	6H	14.27	15.22	14.69	15.59	15.98	9.06	10.01	9.48	10.38	10.77
	8H	14.23	15.12	14.66	15.51	15.92	9.10	9.99	9.53	10.38	10.79
	12H	14.19	15.04	14.62	15.42	15.85	9.12	9.97	9.55	10.35	10.78
4H	2H	14.29	15.32	14.69	15.67	16.06	8.20	9.23	8.61	9.59	9.97
	3H	14.28	15.11	14.69	15.52	15.92	9.11	9.95	9.52	10.35	10.75
	4H	14.22	14.97	14.66	15.39	15.83	9.38	10.13	9.82	10.55	10.99
	6H	14.17	14.80	14.63	15.25	15.72	9.60	10.24	10.06	10.68	11.15
	8H	14.11	14.71	14.58	15.16	15.63	9.66	10.25	10.13	10.70	11.18
	12H	14.07	14.59	14.56	15.08	15.55	9.70	10.22	10.19	10.71	11.18
8H	4H	14.11	14.71	14.58	15.15	15.63	9.37	9.96	9.84	10.41	10.88
	6H	14.05	14.53	14.55	15.03	15.51	9.63	10.12	10.14	10.62	11.10
	8H	14.00	14.43	14.52	14.95	15.44	9.74	10.18	10.27	10.69	11.19
	12H	13.96	14.34	14.48	14.84	15.41	9.82	10.20	10.33	10.70	11.27
12H	4H	14.06	14.59	14.55	15.07	15.55	9.33	9.85	9.82	10.34	10.81
	6H	13.99	14.42	14.51	14.94	15.44	9.60	10.03	10.12	10.55	11.04
	8H	13.96	14.34	14.48	14.84	15.41	9.73	10.12	10.25	10.62	11.19