

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: P1059024

Luminaire Tested: S123RDRP-S1000D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059024
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1000D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

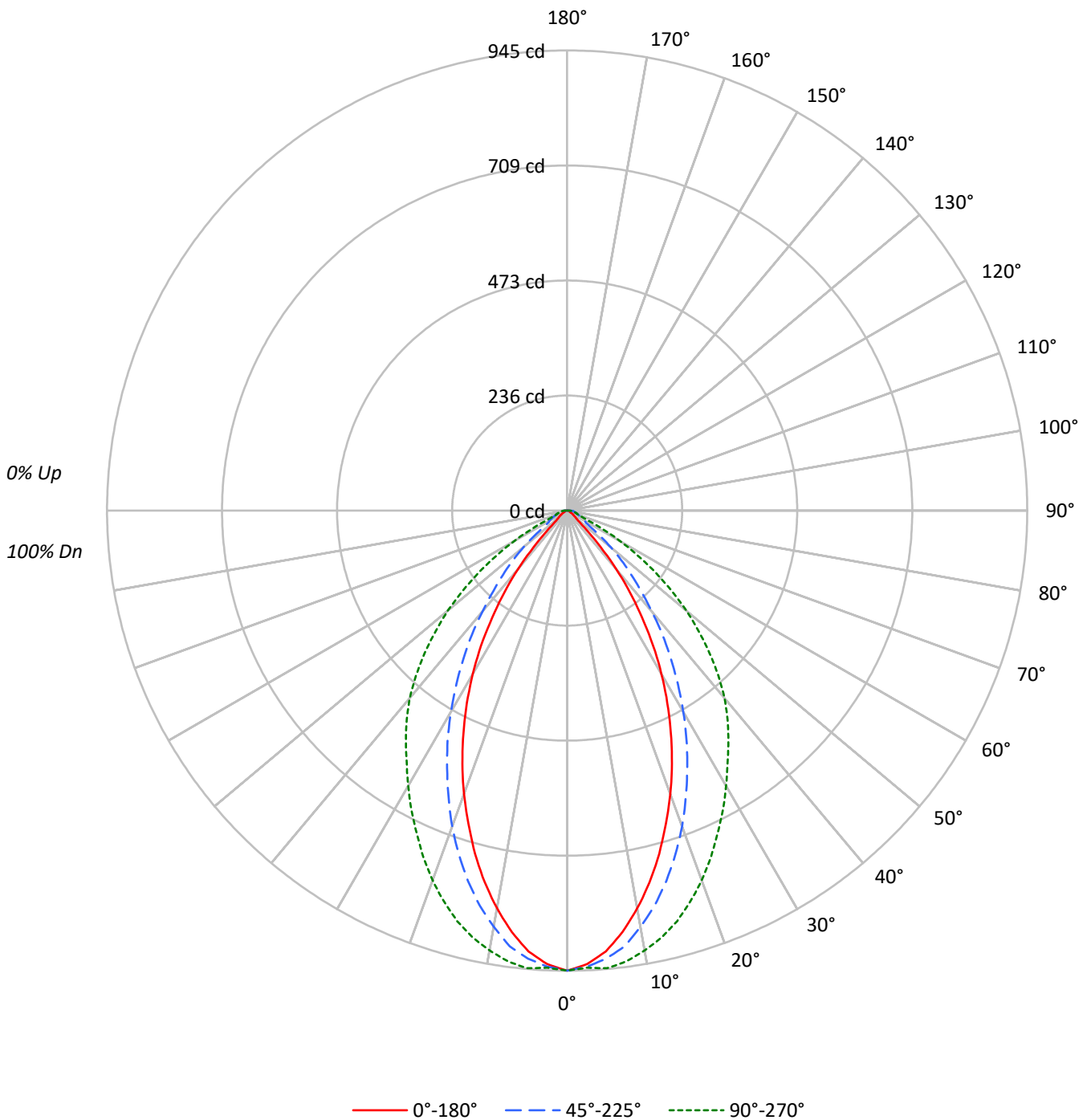
Lumens per Lamp: N/A
Luminaire Lumens: 1134.2 lumens
Efficiency: N/A
Efficacy: 32.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55					55			
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50					50			
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47					47			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11093	11093	11093
5°	10711	10887	11120
10°	9887	10346	10939
15°	8873	9567	10609
20°	7740	8625	10098
25°	6530	7559	9474
30°	5251	6464	8854
35°	3843	5321	8274
40°	2397	4148	7706
45°	907	3092	6865
50°	431	2132	5851
55°	330	1169	4524
60°	233	991	2973
65°	172	861	1242
70°	172	810	810
75°	227	844	844
80°	338	1008	926
85°	674	1671	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6865 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	7.6
10°-20°	222.4	19.6
20°-30°	275.3	24.3
30°-40°	246.8	21.8
40°-50°	161.8	14.3
50°-60°	81.0	7.1
60°-70°	31.6	2.8
70°-80°	17.8	1.6
80°-90°	11.0	1.0
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°	584.3	51.5
0°-40°	831.1	73.3
0°-60°	1073.8	94.7
0°-90°	1134.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1134.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	909	924	924	934	943	84
15°	730	760	787	839	873	203
25°	504	535	583	667	731	230
35°	268	304	371	483	577	167
45°	55	88	186	319	413	52
55°	16	20	57	156	221	15
65°	6	19	31	41	45	6
75°	5	19	19	19	19	5
85°	5	12	12	12	10	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	944.7	944.7	944.7	944.7	944.7
2.5°	932.3	945.9	937.2	938.5	939.7
5°	908.7	923.6	923.6	933.5	943.4
7.5°	872.7	890.1	902.5	919.8	933.5
10°	829.2	850.3	867.7	898.7	917.4
12.5°	782.1	808.1	830.5	871.4	897.5
15°	729.9	759.7	787.0	839.2	872.7
17.5°	674.1	703.8	739.8	800.7	841.6
20°	619.4	649.2	690.2	758.5	808.1
22.5°	562.3	593.4	636.8	712.5	770.9
25°	504.0	535.0	583.4	666.6	731.2
27.5°	445.6	476.7	531.3	621.9	692.7
30°	387.3	418.3	476.7	573.5	653.0
32.5°	329.0	362.5	423.3	528.8	613.2
35°	268.1	304.1	371.2	482.9	577.2
37.5°	212.3	245.8	321.5	443.2	541.2
40°	156.4	192.4	270.6	404.7	502.7
42.5°	101.8	140.3	224.7	362.5	459.3
45°	54.6	88.1	186.2	319.0	413.4
47.5°	29.8	48.4	150.2	273.1	366.2
50°	23.6	27.3	116.7	233.4	320.3
52.5°	19.9	22.3	83.2	196.1	269.4
55°	16.1	19.9	57.1	156.4	221.0
57.5°	13.7	17.4	44.7	121.7	172.5
60°	9.9	14.9	42.2	89.4	126.6
62.5°	7.4	16.1	37.2	62.1	83.2
65°	6.2	18.6	31.0	41.0	44.7
67.5°	5.0	19.9	27.3	26.1	26.1
70°	5.0	18.6	23.6	22.3	23.6
72.5°	5.0	19.9	21.1	19.9	21.1
75°	5.0	18.6	18.6	18.6	18.6
77.5°	5.0	17.4	17.4	16.1	16.1
80°	5.0	14.9	14.9	14.9	13.7
82.5°	5.0	13.7	13.7	13.7	11.2
85°	5.0	12.4	12.4	12.4	9.9
87.5°	3.7	11.2	12.4	11.2	7.4
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	0.73	1.98	1.09	2.29	2.61	14.97	16.22	15.33	16.53	16.85
	3H	3.06	4.17	3.44	4.50	4.87	15.05	16.16	15.43	16.49	16.85
	4H	4.17	5.20	4.57	5.55	5.93	15.12	16.16	15.53	16.51	16.89
	6H	5.16	6.11	5.57	6.48	6.87	15.23	16.18	15.64	16.55	16.94
	8H	5.64	6.54	6.07	6.93	7.34	15.29	16.18	15.72	16.58	16.98
	12H	6.20	7.06	6.64	7.45	7.88	15.37	16.23	15.80	16.61	17.04
4H	2H	3.97	5.00	4.37	5.35	5.74	14.82	15.85	15.22	16.21	16.59
	3H	6.29	7.13	6.70	7.54	7.94	15.00	15.84	15.41	16.25	16.65
	4H	7.66	8.41	8.09	8.83	9.28	15.15	15.90	15.58	16.32	16.77
	6H	8.75	9.40	9.21	9.85	10.31	15.37	16.02	15.84	16.47	16.94
	8H	9.21	9.82	9.68	10.26	10.74	15.50	16.11	15.97	16.55	17.03
	12H	9.70	10.24	10.19	10.73	11.20	15.67	16.21	16.16	16.69	17.17
8H	4H	8.63	9.24	9.10	9.69	10.16	15.14	15.75	15.61	16.20	16.67
	6H	10.16	10.65	10.66	11.15	11.63	15.48	15.98	15.98	16.48	16.96
	8H	10.93	11.38	11.46	11.90	12.39	15.72	16.16	16.24	16.68	17.17
	12H	11.74	12.14	12.25	12.63	13.20	16.05	16.45	16.57	16.94	17.52
12H	4H	8.81	9.35	9.29	9.83	10.30	15.13	15.67	15.62	16.15	16.63
	6H	10.47	10.92	10.99	11.44	11.93	15.50	15.95	16.02	16.47	16.96
	8H	11.43	11.83	11.95	12.32	12.90	15.81	16.21	16.33	16.71	17.28