

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: P1059204

Luminaire Tested: S123RDRP-S340D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059204
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-S340D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

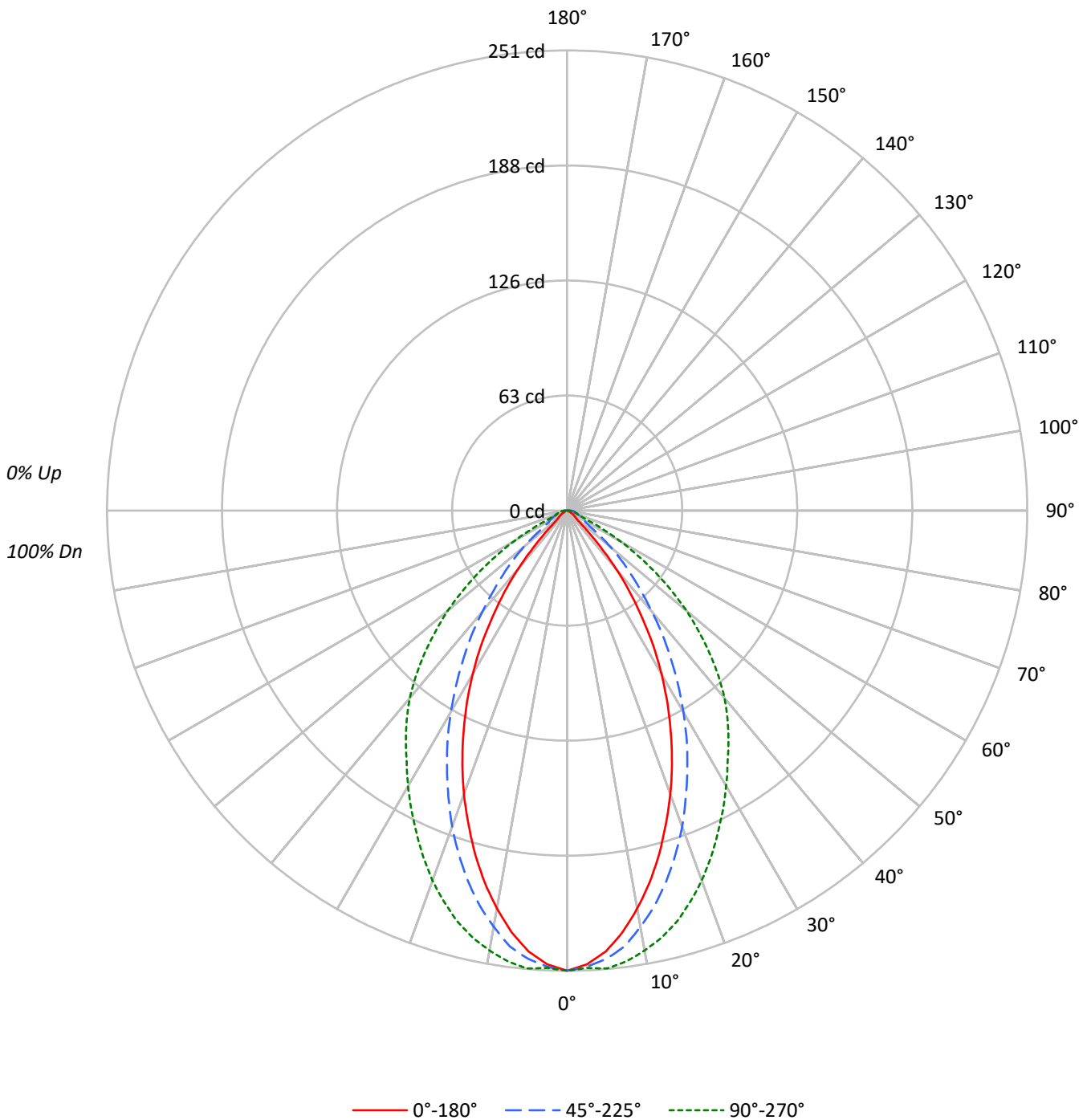
Lumens per Lamp: N/A
Luminaire Lumens: 301.3 lumens
Efficiency: N/A
Efficacy: 24.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2947	2947	2947
5°	2845	2893	2955
10°	2627	2748	2906
15°	2357	2542	2819
20°	2057	2292	2683
25°	1735	2008	2517
30°	1395	1718	2352
35°	1021	1413	2199
40°	638	1102	2048
45°	241	822	1823
50°	115	566	1555
55°	88	311	1202
60°	61	263	789
65°	44	228	331
70°	45	216	216
75°	59	222	222
80°	88	270	243
85°	175	445	350

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1823 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.0	7.6
10°-20°	59.1	19.6
20°-30°	73.1	24.3
30°-40°	65.6	21.8
40°-50°	43.0	14.3
50°-60°	21.5	7.1
60°-70°	8.4	2.8
70°-80°	4.7	1.6
80°-90°	2.9	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°	155.3	51.5
0°-40°	220.8	73.3
0°-60°	285.3	94.7
0°-90°	301.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	301.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	251	251	251	251	251	
5°	241	245	245	248	251	22
15°	194	202	209	223	232	54
25°	134	142	155	177	194	61
35°	71	81	99	128	153	44
45°	14	23	50	85	110	14
55°	4	5	15	42	59	4
65°	2	5	8	11	12	2
75°	1	5	5	5	5	1
85°	1	3	3	3	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	251.0	251.0	251.0	251.0	251.0
2.5°	247.7	251.3	249.0	249.3	249.7
5°	241.4	245.4	245.4	248.0	250.7
7.5°	231.9	236.5	239.8	244.4	248.0
10°	220.3	225.9	230.5	238.8	243.7
12.5°	207.8	214.7	220.7	231.5	238.5
15°	193.9	201.9	209.1	223.0	231.9
17.5°	179.1	187.0	196.6	212.7	223.6
20°	164.6	172.5	183.4	201.5	214.7
22.5°	149.4	157.7	169.2	189.3	204.8
25°	133.9	142.2	155.0	177.1	194.3
27.5°	118.4	126.7	141.2	165.2	184.0
30°	102.9	111.2	126.7	152.4	173.5
32.5°	87.4	96.3	112.5	140.5	162.9
35°	71.2	80.8	98.6	128.3	153.4
37.5°	56.4	65.3	85.4	117.7	143.8
40°	41.6	51.1	71.9	107.5	133.6
42.5°	27.0	37.3	59.7	96.3	122.0
45°	14.5	23.4	49.5	84.8	109.8
47.5°	7.9	12.9	39.9	72.6	97.3
50°	6.3	7.3	31.0	62.0	85.1
52.5°	5.3	5.9	22.1	52.1	71.6
55°	4.3	5.3	15.2	41.6	58.7
57.5°	3.6	4.6	11.9	32.3	45.8
60°	2.6	4.0	11.2	23.7	33.6
62.5°	2.0	4.3	9.9	16.5	22.1
65°	1.6	4.9	8.2	10.9	11.9
67.5°	1.3	5.3	7.3	6.9	6.9
70°	1.3	4.9	6.3	5.9	6.3
72.5°	1.3	5.3	5.6	5.3	5.6
75°	1.3	4.9	4.9	4.9	4.9
77.5°	1.3	4.6	4.6	4.3	4.3
80°	1.3	4.0	4.0	4.0	3.6
82.5°	1.3	3.6	3.6	3.6	3.0
85°	1.3	3.3	3.3	3.3	2.6
87.5°	1.0	3.0	3.3	3.0	2.0
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	0.00	0.00	0.00	0.00	0.00	10.35	11.61	10.72	11.92	12.24
	3H	0.00	0.00	0.00	0.00	0.22	10.43	11.54	10.81	11.88	12.24
	4H	0.00	0.55	0.00	0.90	1.28	10.51	11.54	10.91	11.89	12.28
	6H	0.50	1.45	0.92	1.82	2.22	10.61	11.56	11.03	11.93	12.33
	8H	0.98	1.88	1.41	2.27	2.67	10.67	11.57	11.10	11.96	12.37
	12H	1.53	2.39	1.96	2.77	3.20	10.75	11.61	11.19	11.99	12.43
4H	2H	0.00	0.37	0.00	0.72	1.10	10.21	11.24	10.61	11.59	11.98
	3H	1.66	2.50	2.07	2.91	3.31	10.38	11.23	10.80	11.63	12.04
	4H	3.02	3.77	3.45	4.19	4.63	10.53	11.29	10.97	11.71	12.15
	6H	4.11	4.76	4.57	5.21	5.68	10.76	11.41	11.22	11.86	12.33
	8H	4.56	5.17	5.03	5.62	6.09	10.88	11.49	11.35	11.94	12.41
	12H	5.05	5.59	5.54	6.08	6.55	11.06	11.60	11.54	12.08	12.55
8H	4H	3.99	4.60	4.46	5.05	5.52	10.53	11.14	11.00	11.59	12.06
	6H	5.53	6.03	6.04	6.53	7.01	10.87	11.37	11.37	11.87	12.35
	8H	6.30	6.75	6.82	7.27	7.76	11.10	11.55	11.63	12.07	12.56
	12H	7.10	7.50	7.62	7.99	8.57	11.43	11.83	11.95	12.33	12.90
12H	4H	4.17	4.71	4.66	5.20	5.67	10.51	11.05	11.00	11.54	12.01
	6H	5.85	6.30	6.37	6.81	7.31	10.89	11.34	11.41	11.86	12.35
	8H	6.80	7.20	7.31	7.69	8.26	11.20	11.60	11.71	12.09	12.67