

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: P1059186

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059186
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-S340D840-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

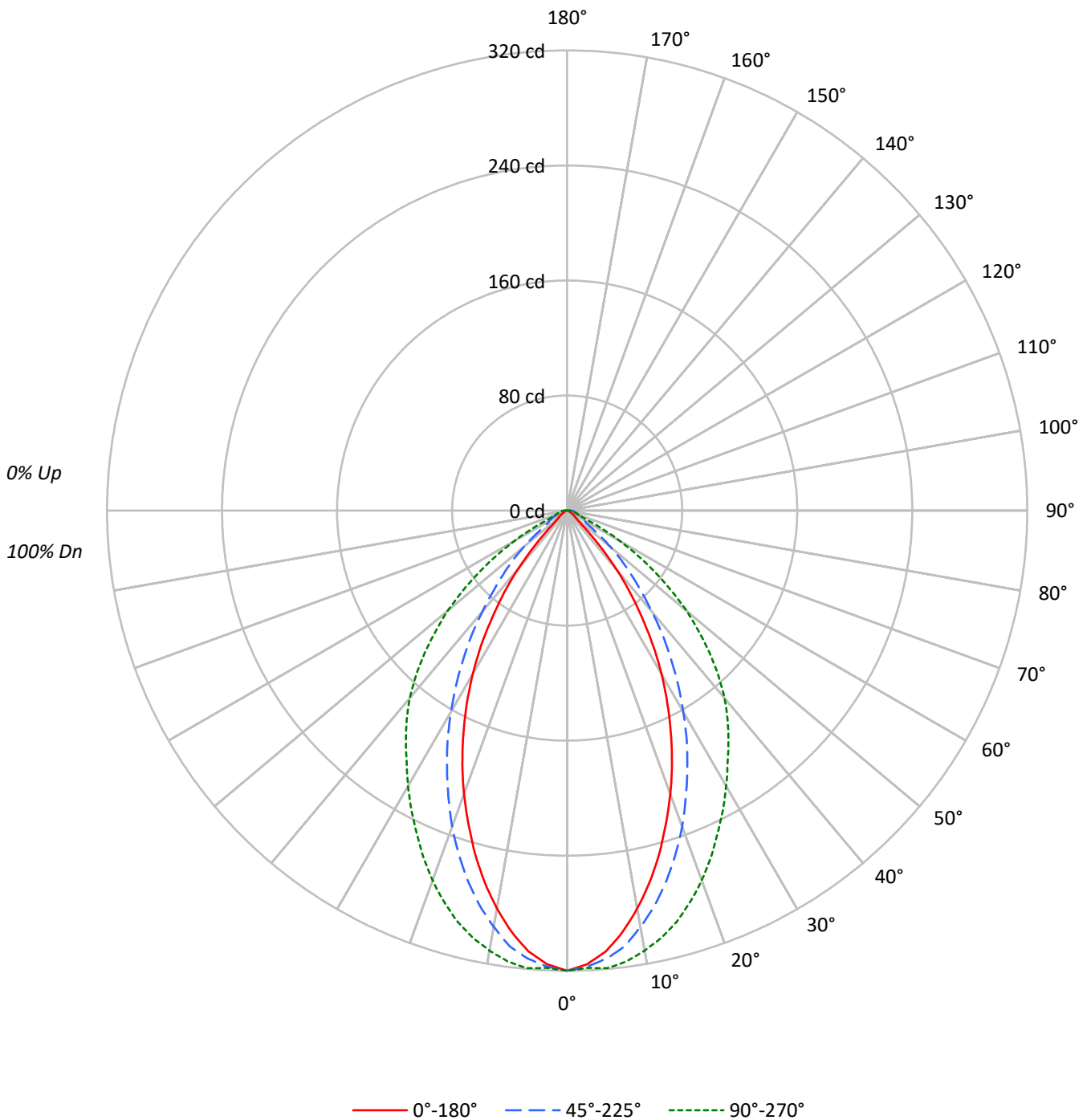
Lumens per Lamp: N/A
Luminaire Lumens: 384.2 lumens
Efficiency: N/A
Efficacy: 30.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (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	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°	3758	3758	3758
5°	3628	3687	3766
10°	3349	3504	3705
15°	3005	3241	3594
20°	2622	2922	3420
25°	2212	2560	3208
30°	1779	2190	2999
35°	1302	1802	2802
40°	812	1406	2610
45°	307	1048	2325
50°	146	722	1982
55°	113	395	1531
60°	80	336	1008
65°	58	292	420
70°	58	275	275
75°	77	286	286
80°	115	338	311
85°	229	566	458

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2325 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.4	7.6
10°-20°	75.3	19.6
20°-30°	93.2	24.3
30°-40°	83.6	21.8
40°-50°	54.8	14.3
50°-60°	27.4	7.1
60°-70°	10.7	2.8
70°-80°	6.0	1.6
80°-90°	3.7	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°	197.9	51.5
0°-40°	281.5	73.3
0°-60°	363.7	94.7
0°-90°	384.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	384.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	320	320	320	320	320	
5°	308	313	313	316	320	29
15°	247	257	267	284	296	69
25°	171	181	198	226	248	78
35°	91	103	126	164	196	57
45°	18	30	63	108	140	18
55°	6	7	19	53	75	5
65°	2	6	10	14	15	2
75°	2	6	6	6	6	2
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	320.0	320.0	320.0	320.0	320.0
2.5°	315.8	320.4	317.4	317.9	318.3
5°	307.8	312.8	312.8	316.2	319.5
7.5°	295.6	301.5	305.7	311.6	316.2
10°	280.9	288.0	293.9	304.4	310.7
12.5°	264.9	273.7	281.3	295.2	304.0
15°	247.2	257.3	266.6	284.2	295.6
17.5°	228.3	238.4	250.6	271.2	285.1
20°	209.8	219.9	233.8	256.9	273.7
22.5°	190.5	201.0	215.7	241.3	261.1
25°	170.7	181.2	197.6	225.8	247.6
27.5°	150.9	161.5	180.0	210.6	234.6
30°	131.2	141.7	161.5	194.3	221.2
32.5°	111.4	122.8	143.4	179.1	207.7
35°	90.8	103.0	125.7	163.6	195.5
37.5°	71.9	83.3	108.9	150.1	183.3
40°	53.0	65.2	91.7	137.1	170.3
42.5°	34.5	47.5	76.1	122.8	155.6
45°	18.5	29.9	63.1	108.1	140.0
47.5°	10.1	16.4	50.9	92.5	124.0
50°	8.0	9.3	39.5	79.0	108.5
52.5°	6.7	7.6	28.2	66.4	91.2
55°	5.5	6.7	19.3	53.0	74.8
57.5°	4.6	5.9	15.1	41.2	58.4
60°	3.4	5.0	14.3	30.3	42.9
62.5°	2.5	5.5	12.6	21.0	28.2
65°	2.1	6.3	10.5	13.9	15.1
67.5°	1.7	6.7	9.3	8.8	8.8
70°	1.7	6.3	8.0	7.6	8.0
72.5°	1.7	6.7	7.1	6.7	7.1
75°	1.7	6.3	6.3	6.3	6.3
77.5°	1.7	5.9	5.9	5.5	5.5
80°	1.7	5.0	5.0	5.0	4.6
82.5°	1.7	4.6	4.6	4.6	3.8
85°	1.7	4.2	4.2	4.2	3.4
87.5°	1.3	3.8	4.2	3.8	2.5
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	11.20	12.46	11.57	12.77	13.09
	3H	0.00	0.40	0.00	0.73	1.10	11.28	12.39	11.66	12.72	13.09
	4H	0.40	1.43	0.80	1.78	2.17	11.36	12.39	11.76	12.74	13.13
	6H	1.39	2.34	1.81	2.71	3.11	11.46	12.41	11.88	12.78	13.18
	8H	1.88	2.78	2.31	3.17	3.57	11.52	12.42	11.95	12.81	13.22
	12H	2.44	3.30	2.87	3.68	4.11	11.60	12.46	12.04	12.85	13.28
4H	2H	0.20	1.24	0.61	1.59	1.97	11.06	12.09	11.46	12.44	12.83
	3H	2.52	3.36	2.93	3.77	4.17	11.23	12.08	11.65	12.48	12.89
	4H	3.89	4.65	4.33	5.07	5.51	11.38	12.14	11.82	12.56	13.00
	6H	4.98	5.63	5.44	6.08	6.54	11.61	12.26	12.07	12.71	13.18
	8H	5.43	6.04	5.91	6.49	6.96	11.73	12.34	12.20	12.79	13.26
	12H	5.93	6.47	6.42	6.95	7.43	11.91	12.45	12.40	12.93	13.41
8H	4H	4.86	5.47	5.34	5.92	6.39	11.38	11.99	11.85	12.44	12.91
	6H	6.38	6.88	6.88	7.37	7.86	11.72	12.21	12.22	12.71	13.19
	8H	7.15	7.60	7.67	8.11	8.61	11.95	12.40	12.47	12.91	13.41
	12H	7.96	8.36	8.47	8.85	9.42	12.28	12.68	12.80	13.18	13.75
12H	4H	5.04	5.58	5.53	6.06	6.54	11.36	11.90	11.85	12.39	12.86
	6H	6.69	7.14	7.21	7.66	8.15	11.73	12.18	12.26	12.70	13.19
	8H	7.64	8.04	8.16	8.54	9.11	12.04	12.44	12.56	12.94	13.51