

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: P1059240

Luminaire Tested: S123RDRP-S340D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059240
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-S340D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

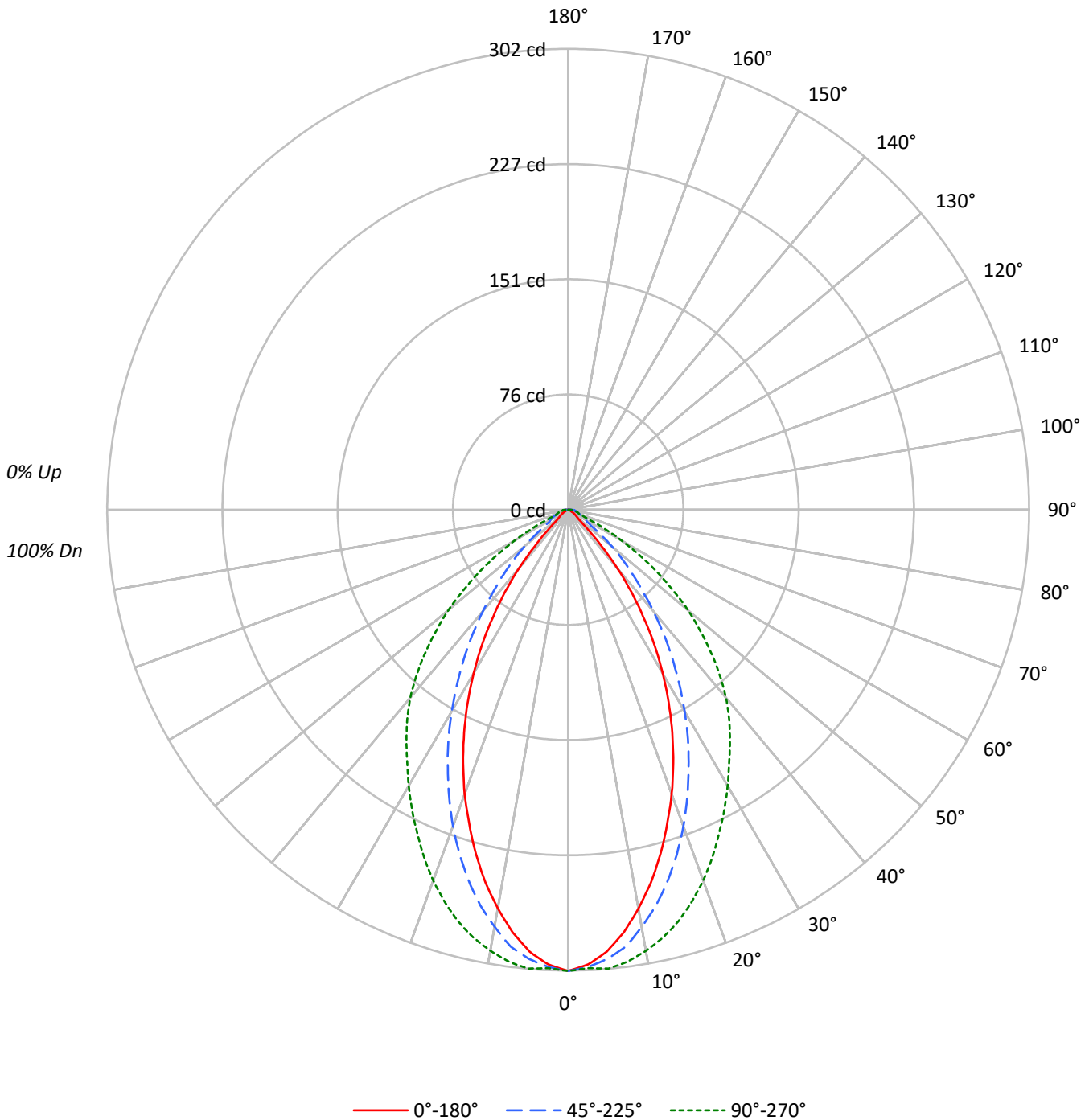
Lumens per Lamp: N/A
Luminaire Lumens: 363.0 lumens
Efficiency: N/A
Efficacy: 29.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	89	102	97	92	88	94	90	86	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°	3550	3550	3550
5°	3427	3483	3559
10°	3163	3310	3500
15°	2840	3061	3394
20°	2477	2759	3231
25°	2090	2419	3030
30°	1680	2068	2832
35°	1230	1703	2648
40°	766	1327	2466
45°	291	990	2197
50°	137	681	1872
55°	106	375	1447
60°	75	317	951
65°	56	275	397
70°	55	257	257
75°	73	272	272
80°	108	325	298
85°	216	539	431

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2197 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.7	7.6
10°-20°	71.1	19.6
20°-30°	88.1	24.3
30°-40°	79.0	21.8
40°-50°	51.8	14.3
50°-60°	25.9	7.1
60°-70°	10.1	2.8
70°-80°	5.7	1.6
80°-90°	3.5	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°	187.0	51.5
0°-40°	265.9	73.3
0°-60°	343.6	94.7
0°-90°	363.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	363.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	302	302	302	302	302	
5°	291	296	296	299	302	27
15°	234	243	252	268	279	65
25°	161	171	187	213	234	74
35°	86	97	119	154	185	53
45°	18	28	60	102	132	17
55°	5	6	18	50	71	5
65°	2	6	10	13	14	2
75°	2	6	6	6	6	2
85°	2	4	4	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	302.3	302.3	302.3	302.3	302.3
2.5°	298.3	302.7	299.9	300.3	300.7
5°	290.7	295.5	295.5	298.7	301.9
7.5°	279.2	284.8	288.8	294.3	298.7
10°	265.3	272.1	277.6	287.6	293.5
12.5°	250.2	258.6	265.7	278.8	287.2
15°	233.6	243.1	251.8	268.5	279.2
17.5°	215.7	225.2	236.7	256.2	269.3
20°	198.2	207.7	220.8	242.7	258.6
22.5°	179.9	189.9	203.8	228.0	246.7
25°	161.3	171.2	186.7	213.3	233.9
27.5°	142.6	152.5	170.0	199.0	221.6
30°	123.9	133.9	152.5	183.5	208.9
32.5°	105.3	116.0	135.4	169.2	196.2
35°	85.8	97.3	118.8	154.5	184.7
37.5°	67.9	78.6	102.9	141.8	173.2
40°	50.0	61.6	86.6	129.5	160.9
42.5°	32.6	44.9	71.9	116.0	147.0
45°	17.5	28.2	59.6	102.1	132.3
47.5°	9.5	15.5	48.1	87.4	117.2
50°	7.5	8.7	37.3	74.7	102.5
52.5°	6.4	7.1	26.6	62.8	86.2
55°	5.2	6.4	18.3	50.0	70.7
57.5°	4.4	5.6	14.3	38.9	55.2
60°	3.2	4.8	13.5	28.6	40.5
62.5°	2.4	5.2	11.9	19.9	26.6
65°	2.0	6.0	9.9	13.1	14.3
67.5°	1.6	6.4	8.7	8.3	8.3
70°	1.6	6.0	7.5	7.1	7.5
72.5°	1.6	6.4	6.8	6.4	6.8
75°	1.6	6.0	6.0	6.0	6.0
77.5°	1.6	5.6	5.6	5.2	5.2
80°	1.6	4.8	4.8	4.8	4.4
82.5°	1.6	4.4	4.4	4.4	3.6
85°	1.6	4.0	4.0	4.0	3.2
87.5°	1.2	3.6	4.0	3.6	2.4
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	0.00	0.00	0.00	0.00	0.00	11.00	12.26	11.37	12.57	12.88
	3H	0.00	0.25	0.00	0.58	0.94	11.08	12.19	11.46	12.52	12.89
	4H	0.24	1.28	0.65	1.63	2.01	11.16	12.19	11.56	12.54	12.93
	6H	1.23	2.18	1.65	2.55	2.95	11.27	12.22	11.68	12.59	12.98
	8H	1.71	2.61	2.14	3.00	3.41	11.33	12.22	11.76	12.62	13.02
	12H	2.27	3.13	2.70	3.51	3.94	11.41	12.27	11.84	12.65	13.08
4H	2H	0.01	1.05	0.42	1.40	1.78	10.86	11.89	11.26	12.24	12.63
	3H	2.35	3.19	2.76	3.60	4.00	11.03	11.87	11.44	12.28	12.68
	4H	3.73	4.48	4.16	4.90	5.35	11.18	11.94	11.62	12.36	12.80
	6H	4.82	5.47	5.28	5.92	6.39	11.41	12.07	11.88	12.51	12.98
	8H	5.28	5.89	5.75	6.33	6.81	11.54	12.15	12.01	12.60	13.07
	12H	5.77	6.31	6.26	6.79	7.27	11.72	12.26	12.20	12.74	13.21
8H	4H	4.70	5.31	5.17	5.76	6.23	11.18	11.79	11.65	12.24	12.71
	6H	6.23	6.73	6.73	7.23	7.71	11.53	12.03	12.03	12.52	13.01
	8H	7.01	7.46	7.53	7.97	8.46	11.76	12.21	12.29	12.73	13.22
	12H	7.81	8.21	8.33	8.71	9.28	12.10	12.50	12.62	13.00	13.57
12H	4H	4.88	5.42	5.37	5.90	6.38	11.17	11.71	11.66	12.19	12.67
	6H	6.55	7.00	7.07	7.51	8.01	11.55	12.00	12.07	12.51	13.01
	8H	7.50	7.90	8.02	8.40	8.97	11.86	12.26	12.38	12.75	13.33