

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: P1059182

Luminaire Tested: S123RDRP-S340D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

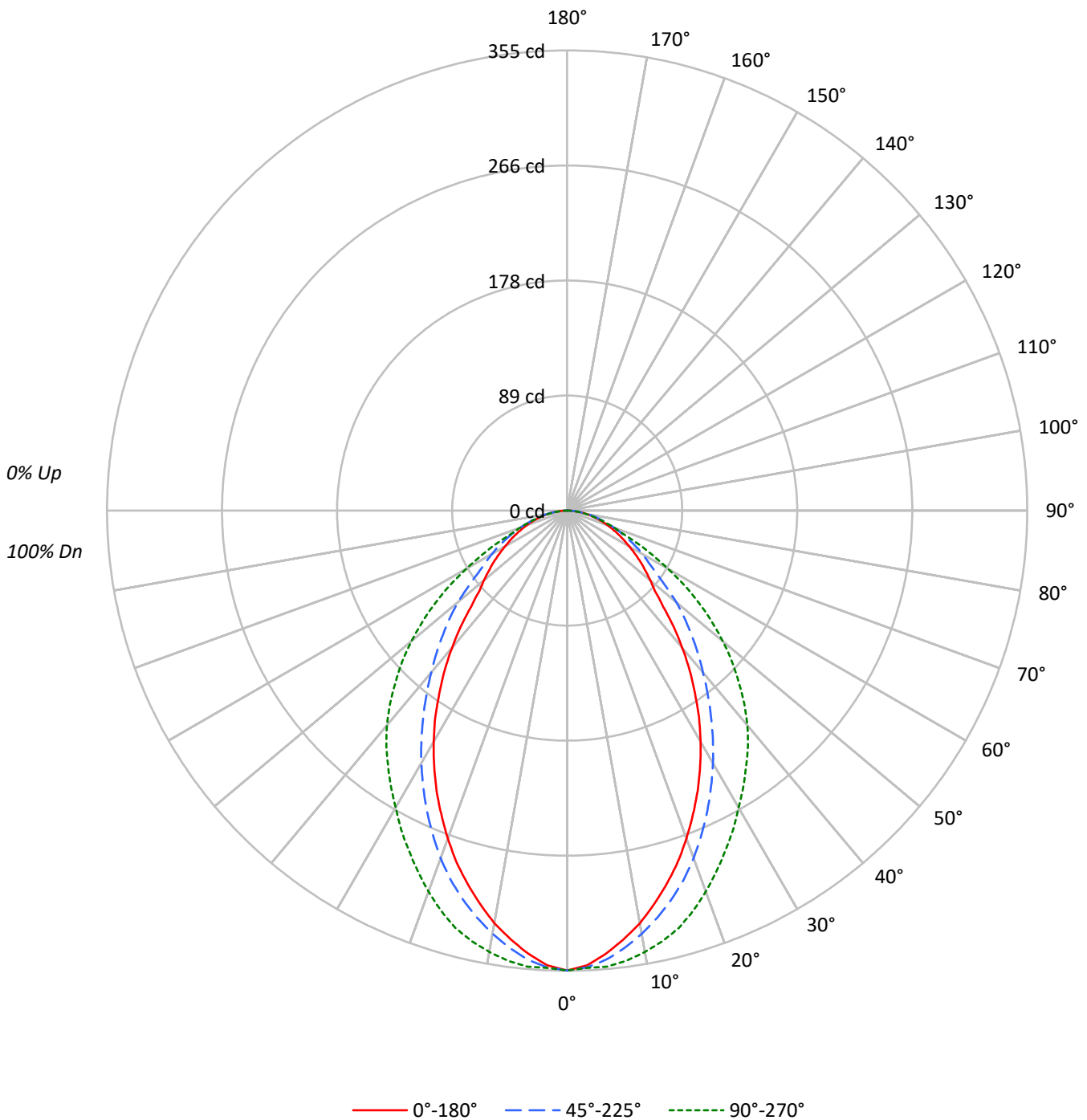
Lumens per Lamp: N/A
Luminaire Lumens: 640.9 lumens
Efficiency: N/A
Efficacy: 51.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4166	4166	4166
5°	4045	4098	4162
10°	3854	3953	4122
15°	3620	3777	4051
20°	3363	3565	3909
25°	3087	3314	3746
30°	2792	3051	3586
35°	2463	2772	3452
40°	2117	2500	3316
45°	1740	2252	3109
50°	1527	2006	2864
55°	1413	1711	2539
60°	1299	1573	2100
65°	1214	1445	1653
70°	1143	1315	1315
75°	1075	1207	1134
80°	1014	1095	953
85°	957	1064	728

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3109 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	5.1
10°-20°	87.9	13.7
20°-30°	119.2	18.6
30°-40°	124.7	19.5
40°-50°	108.1	16.9
50°-60°	80.4	12.6
60°-70°	51.6	8.1
70°-80°	27.7	4.3
80°-90°	8.4	1.3
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°	240.0	37.4
0°-40°	364.7	56.9
0°-60°	553.3	86.3
0°-90°	640.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	640.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	355	355	355	355	355	
5°	343	349	348	350	353	32
15°	298	305	311	323	333	83
25°	238	246	256	273	289	109
35°	172	180	193	218	241	107
45°	105	113	136	165	187	82
55°	69	71	84	107	124	62
65°	44	47	52	55	60	43
75°	24	28	27	25	25	25
85°	7	9	8	7	5	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	354.8	354.8	354.8	354.8	354.8
2.5°	351.1	356.1	352.7	352.7	353.1
5°	343.2	349.0	347.7	350.2	353.1
7.5°	333.6	339.8	340.2	346.1	350.2
10°	323.2	329.4	331.5	339.8	345.7
12.5°	310.7	317.8	321.5	331.9	340.2
15°	297.8	304.9	310.7	323.2	333.2
17.5°	284.1	291.2	298.7	312.8	323.6
20°	269.1	276.6	285.3	299.5	312.8
22.5°	253.7	261.6	270.8	286.2	301.1
25°	238.3	245.8	255.8	272.9	289.1
27.5°	222.1	230.0	240.4	259.1	277.4
30°	205.9	213.8	225.0	245.0	264.5
32.5°	189.3	197.2	209.2	231.7	252.9
35°	171.8	180.1	193.4	218.0	240.8
37.5°	155.1	163.1	178.0	205.1	229.2
40°	138.1	146.4	163.1	192.2	216.3
42.5°	121.5	129.8	149.3	178.4	202.2
45°	104.8	112.7	135.6	164.7	187.2
47.5°	91.9	97.7	122.7	150.2	172.6
50°	83.6	85.7	109.8	136.0	156.8
52.5°	76.1	77.8	95.7	121.9	140.6
55°	69.0	70.7	83.6	107.3	124.0
57.5°	62.0	64.1	74.5	92.3	107.3
60°	55.3	57.8	67.0	79.0	89.4
62.5°	49.5	52.4	59.5	67.0	74.0
65°	43.7	47.4	52.0	55.3	59.5
67.5°	38.3	42.4	44.9	45.8	46.2
70°	33.3	37.4	38.3	38.3	38.3
72.5°	28.3	32.9	32.0	31.6	31.2
75°	23.7	27.5	26.6	25.4	25.0
77.5°	19.1	22.5	21.2	20.4	19.1
80°	15.0	17.5	16.2	15.4	14.1
82.5°	11.2	12.9	11.6	10.8	9.6
85°	7.1	8.7	7.9	6.7	5.4
87.5°	3.7	5.0	4.2	3.7	2.1
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	11.75	13.23	12.11	13.54	13.86	14.50	15.98	14.86	16.29	16.61
	3H	13.46	14.78	13.83	15.11	15.48	15.52	16.85	15.90	17.18	17.54
	4H	14.12	15.36	14.52	15.71	16.09	15.89	17.13	16.29	17.48	17.86
	6H	14.62	15.77	15.03	16.13	16.53	16.14	17.29	16.55	17.66	18.05
	8H	14.80	15.89	15.22	16.28	16.68	16.21	17.31	16.64	17.70	18.10
	12H	14.92	15.97	15.35	16.35	16.78	16.25	17.29	16.68	17.68	18.11
4H	2H	12.52	13.77	12.92	14.12	14.50	14.77	16.01	15.17	16.36	16.74
	3H	14.45	15.48	14.86	15.88	16.28	16.03	17.06	16.44	17.46	17.86
	4H	15.26	16.19	15.69	16.60	17.04	16.51	17.44	16.95	17.86	18.30
	6H	15.90	16.71	16.36	17.15	17.61	16.89	17.70	17.35	18.14	18.61
	8H	16.13	16.88	16.59	17.33	17.79	17.01	17.76	17.47	18.21	18.67
	12H	16.30	16.97	16.78	17.45	17.92	17.08	17.75	17.56	18.23	18.70
8H	4H	15.58	16.33	16.04	16.78	17.24	16.70	17.46	17.17	17.90	18.37
	6H	16.37	16.99	16.87	17.49	17.96	17.19	17.82	17.69	18.31	18.79
	8H	16.70	17.26	17.21	17.77	18.26	17.37	17.93	17.88	18.44	18.93
	12H	16.97	17.47	17.49	17.96	18.53	17.50	18.00	18.01	18.49	19.05
12H	4H	15.60	16.28	16.08	16.75	17.23	16.72	17.39	17.20	17.87	18.34
	6H	16.42	16.99	16.94	17.50	17.98	17.23	17.79	17.74	18.30	18.79
	8H	16.82	17.31	17.33	17.81	18.37	17.46	17.95	17.97	18.45	19.01