

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: P1059187

Luminaire Tested: S123RDRP-S340D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059187
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

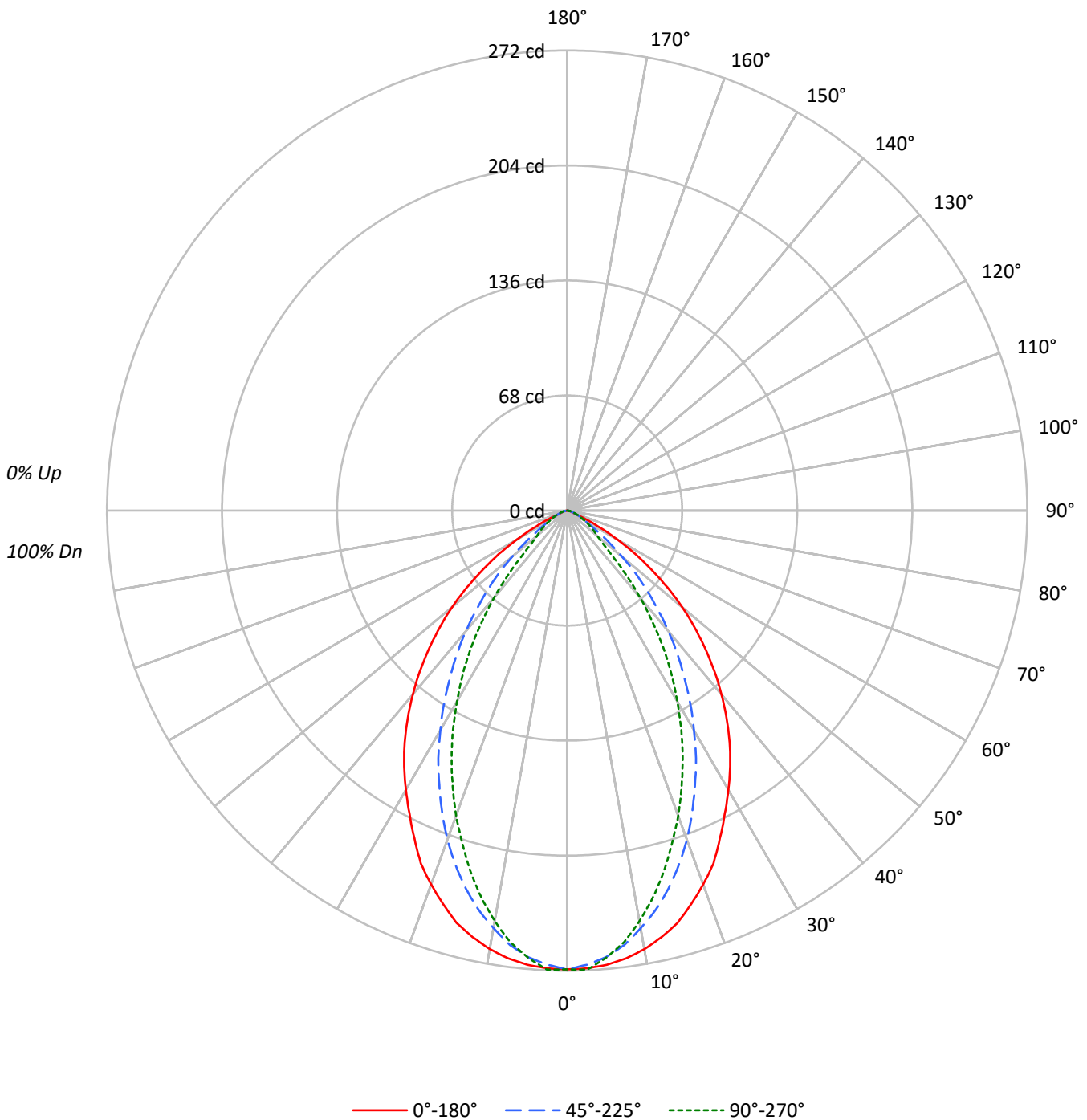
Lumens per Lamp: N/A
Luminaire Lumens: 350.1 lumens
Efficiency: N/A
Efficacy: 28.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3185	3185	3185
5°	3177	3122	3127
10°	3138	2988	2938
15°	3067	2812	2684
20°	2938	2587	2398
25°	2769	2317	2094
30°	2584	2032	1764
35°	2401	1733	1421
40°	2175	1429	1030
45°	1916	1108	621
50°	1626	775	422
55°	1239	465	352
60°	808	296	277
65°	339	222	222
70°	117	158	172
75°	95	113	132
80°	54	88	115
85°	54	54	108

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1916 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	7.2
10°-20°	65.6	18.7
20°-30°	84.1	24.0
30°-40°	78.9	22.5
40°-50°	55.0	15.7
50°-60°	28.5	8.1
60°-70°	9.7	2.8
70°-80°	2.8	0.8
80°-90°	0.6	0.2
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°	174.7	49.9
0°-40°	253.5	72.4
0°-60°	337.0	96.3
0°-90°	350.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	350.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	271	271	271	271	271	
5°	270	269	265	266	265	26
15°	252	246	231	224	221	71
25°	214	200	179	167	162	98
35°	168	147	121	105	99	104
45°	115	94	67	46	37	89
55°	60	45	23	18	17	54
65°	12	10	8	8	8	14
75°	2	2	2	3	3	2
85°	0	0	0	0	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	271.2	271.2	271.2	271.2	271.2
2.5°	270.8	271.2	268.7	271.2	271.6
5°	269.5	269.1	264.9	266.2	265.3
7.5°	267.0	265.7	259.0	257.3	257.3
10°	263.2	260.7	250.6	247.7	246.4
12.5°	258.2	254.8	241.8	236.4	234.3
15°	252.3	246.0	231.3	223.8	220.8
17.5°	243.9	235.5	219.6	210.7	206.1
20°	235.1	224.6	207.0	196.5	191.9
22.5°	225.9	213.3	193.1	181.8	176.7
25°	213.7	200.2	178.8	166.7	161.6
27.5°	201.9	187.7	165.0	151.1	146.1
30°	190.6	173.8	149.9	136.4	130.1
32.5°	179.3	160.4	135.6	120.9	115.0
35°	167.5	146.9	120.9	105.4	99.1
37.5°	154.9	133.9	107.1	90.3	82.7
40°	141.9	120.1	93.2	74.3	67.2
42.5°	128.9	107.5	79.3	60.0	51.6
45°	115.4	94.5	66.7	46.2	37.4
47.5°	102.0	81.4	54.6	33.6	28.1
50°	89.0	69.3	42.4	24.8	23.1
52.5°	74.7	57.5	31.9	20.6	20.2
55°	60.5	45.3	22.7	17.6	17.2
57.5°	47.9	35.3	16.4	14.7	14.3
60°	34.4	25.2	12.6	12.2	11.8
62.5°	22.7	17.2	10.1	9.7	9.7
65°	12.2	10.5	8.0	7.6	8.0
67.5°	5.0	5.9	5.9	6.3	6.3
70°	3.4	3.8	4.6	5.0	5.0
72.5°	2.5	2.9	3.4	3.8	3.8
75°	2.1	2.1	2.5	2.9	2.9
77.5°	1.3	1.7	1.7	2.1	2.5
80°	0.8	1.3	1.3	1.7	1.7
82.5°	0.4	0.8	0.8	1.3	1.3
85°	0.4	0.4	0.4	0.4	0.8
87.5°	0.0	0.0	0.0	0.0	0.4
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	10.36	11.62	10.73	11.93	12.25	3.87	5.13	4.23	5.44	5.76
	3H	10.32	11.43	10.70	11.76	12.12	4.64	5.75	5.02	6.08	6.44
	4H	10.26	11.29	10.67	11.64	12.03	4.84	5.87	5.24	6.22	6.60
	6H	10.19	11.14	10.61	11.51	11.90	4.98	5.92	5.40	6.29	6.69
	8H	10.15	11.04	10.58	11.43	11.84	5.02	5.91	5.45	6.30	6.71
	12H	10.11	10.96	10.54	11.34	11.77	5.04	5.89	5.47	6.27	6.70
4H	2H	10.21	11.24	10.61	11.59	11.98	4.13	5.16	4.53	5.51	5.89
	3H	10.20	11.03	10.61	11.44	11.84	5.03	5.86	5.44	6.27	6.67
	4H	10.14	10.89	10.58	11.31	11.75	5.29	6.04	5.73	6.46	6.90
	6H	10.09	10.72	10.55	11.17	11.64	5.51	6.15	5.98	6.60	7.07
	8H	10.03	10.63	10.51	11.08	11.55	5.58	6.18	6.05	6.62	7.10
	12H	9.99	10.51	10.48	11.00	11.47	5.62	6.14	6.10	6.63	7.10
8H	4H	10.03	10.63	10.50	11.07	11.55	5.28	5.87	5.75	6.32	6.79
	6H	9.97	10.45	10.47	10.95	11.43	5.55	6.04	6.06	6.53	7.02
	8H	9.92	10.35	10.44	10.87	11.36	5.67	6.10	6.19	6.62	7.11
	12H	9.88	10.26	10.40	10.76	11.33	5.74	6.12	6.26	6.62	7.19
12H	4H	9.98	10.51	10.47	10.99	11.47	5.24	5.77	5.73	6.25	6.73
	6H	9.91	10.35	10.44	10.86	11.36	5.51	5.95	6.04	6.47	6.96
	8H	9.88	10.26	10.40	10.76	11.33	5.66	6.05	6.18	6.54	7.11