

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: P1059177

Luminaire Tested: S123RDRP-S340D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059177
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-S340D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

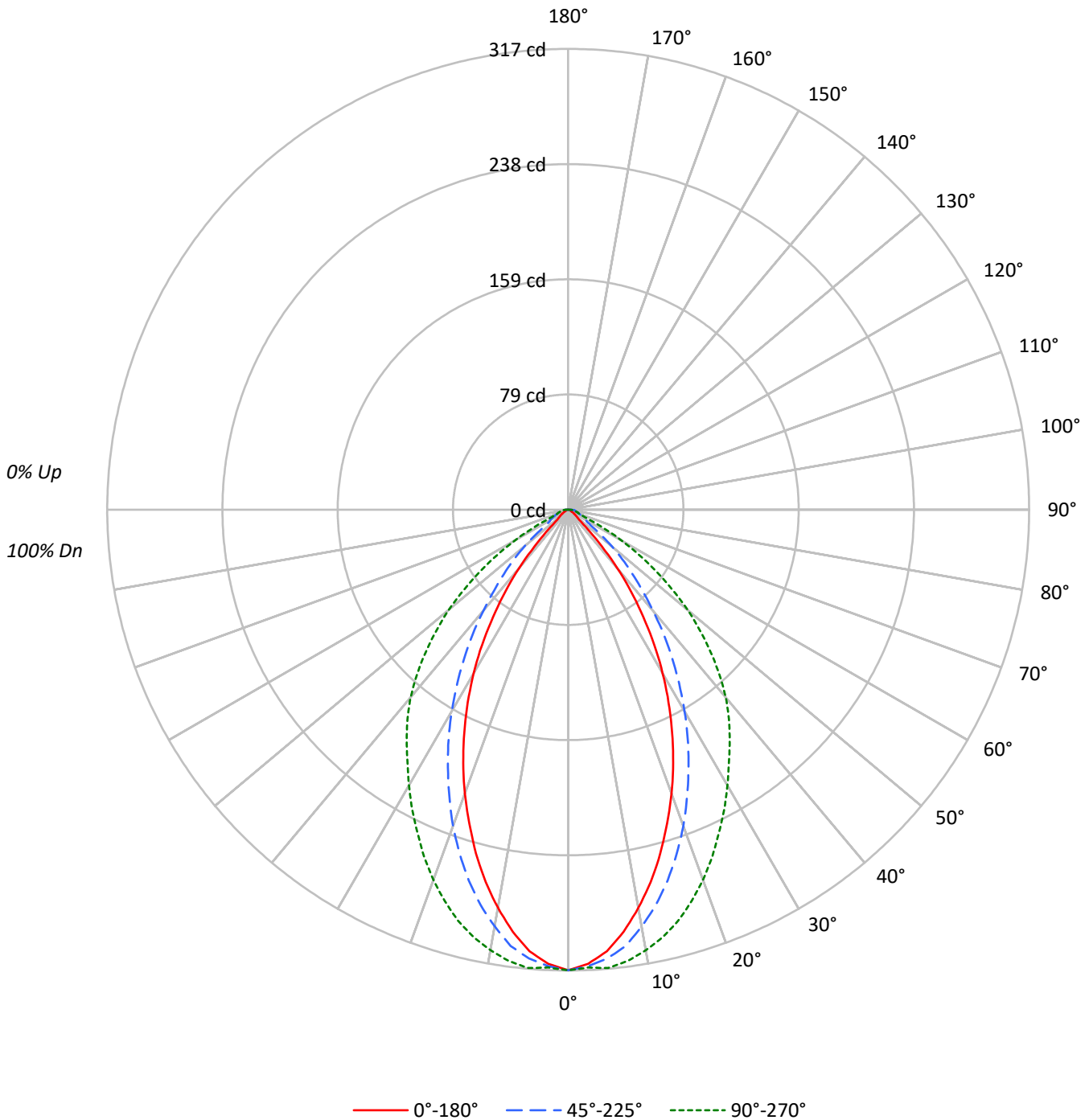
Lumens per Lamp: N/A
Luminaire Lumens: 380.4 lumens
Efficiency: N/A
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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°	3720	3720	3720
5°	3593	3652	3729
10°	3316	3470	3669
15°	2976	3209	3558
20°	2597	2893	3386
25°	2190	2536	3177
30°	1761	2168	2969
35°	1289	1785	2775
40°	805	1392	2584
45°	304	1038	2302
50°	144	714	1962
55°	111	393	1517
60°	78	333	998
65°	58	289	417
70°	58	271	271
75°	77	281	281
80°	115	338	311
85°	229	566	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2302 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	7.6
10°-20°	74.6	19.6
20°-30°	92.3	24.3
30°-40°	82.8	21.8
40°-50°	54.3	14.3
50°-60°	27.2	7.1
60°-70°	10.6	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°	196.0	51.5
0°-40°	278.7	73.3
0°-60°	360.2	94.7
0°-90°	380.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	380.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	317	317	317	317	317	
5°	305	310	310	313	316	28
15°	245	255	264	282	293	68
25°	169	179	196	224	245	77
35°	90	102	124	162	194	56
45°	18	30	62	107	139	17
55°	5	7	19	52	74	5
65°	2	6	10	14	15	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°	316.8	316.8	316.8	316.8	316.8
2.5°	312.7	317.3	314.3	314.8	315.2
5°	304.8	309.8	309.8	313.1	316.4
7.5°	292.7	298.5	302.7	308.5	313.1
10°	278.1	285.2	291.0	301.4	307.7
12.5°	262.3	271.0	278.5	292.3	301.0
15°	244.8	254.8	264.0	281.5	292.7
17.5°	226.1	236.1	248.1	268.5	282.3
20°	207.8	217.7	231.5	254.4	271.0
22.5°	188.6	199.0	213.6	239.0	258.6
25°	169.0	179.4	195.7	223.6	245.2
27.5°	149.5	159.9	178.2	208.6	232.3
30°	129.9	140.3	159.9	192.4	219.0
32.5°	110.3	121.6	142.0	177.4	205.7
35°	89.9	102.0	124.5	162.0	193.6
37.5°	71.2	82.4	107.8	148.6	181.5
40°	52.5	64.5	90.8	135.7	168.6
42.5°	34.1	47.0	75.4	121.6	154.0
45°	18.3	29.6	62.5	107.0	138.6
47.5°	10.0	16.2	50.4	91.6	122.8
50°	7.9	9.2	39.1	78.3	107.4
52.5°	6.7	7.5	27.9	65.8	90.3
55°	5.4	6.7	19.2	52.5	74.1
57.5°	4.6	5.8	15.0	40.8	57.9
60°	3.3	5.0	14.2	30.0	42.5
62.5°	2.5	5.4	12.5	20.8	27.9
65°	2.1	6.2	10.4	13.7	15.0
67.5°	1.7	6.7	9.2	8.7	8.7
70°	1.7	6.2	7.9	7.5	7.9
72.5°	1.7	6.7	7.1	6.7	7.1
75°	1.7	6.2	6.2	6.2	6.2
77.5°	1.7	5.8	5.8	5.4	5.4
80°	1.7	5.0	5.0	5.0	4.6
82.5°	1.7	4.6	4.6	4.6	3.7
85°	1.7	4.2	4.2	4.2	3.3
87.5°	1.2	3.7	4.2	3.7	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	11.17	12.43	11.54	12.74	13.05
	3H	0.00	0.37	0.00	0.70	1.06	11.25	12.36	11.63	12.69	13.06
	4H	0.37	1.40	0.77	1.75	2.14	11.33	12.36	11.73	12.71	13.09
	6H	1.37	2.32	1.79	2.69	3.09	11.43	12.38	11.84	12.75	13.14
	8H	1.86	2.76	2.29	3.15	3.56	11.49	12.38	11.92	12.78	13.18
	12H	2.43	3.29	2.87	3.68	4.11	11.57	12.42	12.00	12.81	13.24
4H	2H	0.16	1.19	0.56	1.54	1.93	11.02	12.06	11.43	12.41	12.79
	3H	2.49	3.33	2.90	3.74	4.14	11.20	12.04	11.61	12.45	12.85
	4H	3.85	4.61	4.29	5.03	5.47	11.35	12.10	11.78	12.52	12.97
	6H	4.94	5.60	5.41	6.04	6.51	11.57	12.23	12.04	12.67	13.14
	8H	5.41	6.02	5.88	6.47	6.94	11.70	12.31	12.17	12.75	13.23
	12H	5.92	6.46	6.40	6.94	7.41	11.87	12.41	12.36	12.89	13.37
8H	4H	4.82	5.43	5.29	5.88	6.35	11.34	11.95	11.81	12.40	12.87
	6H	6.35	6.85	6.85	7.35	7.83	11.68	12.18	12.19	12.68	13.16
	8H	7.13	7.58	7.66	8.10	8.59	11.91	12.36	12.44	12.88	13.37
	12H	7.95	8.35	8.47	8.85	9.42	12.25	12.65	12.77	13.14	13.72
12H	4H	5.00	5.54	5.48	6.02	6.49	11.33	11.87	11.82	12.35	12.83
	6H	6.67	7.12	7.19	7.63	8.13	11.70	12.15	12.23	12.67	13.16
	8H	7.63	8.03	8.15	8.53	9.10	12.01	12.41	12.53	12.91	13.48