

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: P1059178

Luminaire Tested: S123RDRP-S340D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059178  
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-S340D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

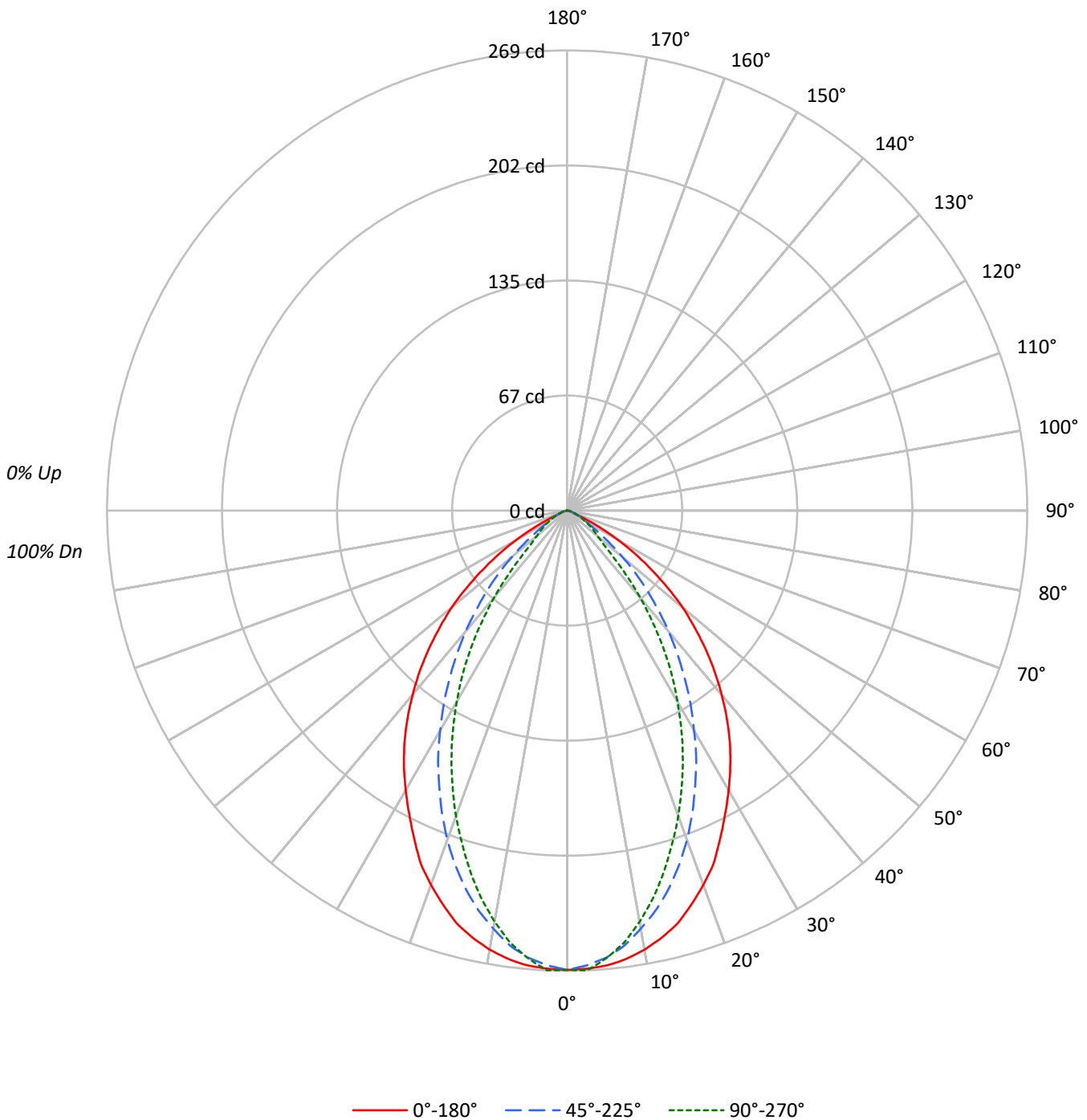
Lumens per Lamp: N/A  
Luminaire Lumens: 346.7 lumens  
Efficiency: N/A  
Efficacy: 27.7 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 12.5  
Input Voltage (V): 120  
Input Current (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	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	71	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	49	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°	3153	3153	3153
5°	3146	3092	3097
10°	3107	2959	2909
15°	3037	2785	2659
20°	2909	2560	2374
25°	2742	2295	2073
30°	2559	2012	1748
35°	2378	1716	1406
40°	2154	1415	1019
45°	1898	1098	614
50°	1609	767	418
55°	1226	459	348
60°	801	294	272
65°	336	220	220
70°	113	158	172
75°	95	113	132
80°	54	81	115
85°	54	54	108

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1898 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.8	7.2
10°-20°	64.9	18.7
20°-30°	83.2	24.0
30°-40°	78.1	22.5
40°-50°	54.5	15.7
50°-60°	28.2	8.1
60°-70°	9.6	2.8
70°-80°	2.7	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°	172.9	49.9
0°-40°	251.1	72.4
0°-60°	333.7	96.3
0°-90°	346.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	346.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	268	268	268	268	268	
5°	267	266	262	264	263	25
15°	250	244	229	222	219	70
25°	212	198	177	165	160	97
35°	166	146	120	104	98	103
45°	114	94	66	46	37	88
55°	60	45	22	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°	268.5	268.5	268.5	268.5	268.5
2.5°	268.1	268.5	266.1	268.5	269.0
5°	266.9	266.5	262.3	263.6	262.7
7.5°	264.4	263.1	256.5	254.8	254.8
10°	260.6	258.2	248.2	245.3	244.0
12.5°	255.7	252.3	239.4	234.0	232.0
15°	249.8	243.6	229.1	221.6	218.7
17.5°	241.5	233.2	217.4	208.7	204.1
20°	232.8	222.4	204.9	194.6	190.0
22.5°	223.6	211.2	191.2	180.0	175.0
25°	211.6	198.3	177.1	165.0	160.0
27.5°	200.0	185.8	163.4	149.7	144.7
30°	188.7	172.1	148.4	135.1	128.9
32.5°	177.5	158.8	134.3	119.7	113.9
35°	165.9	145.5	119.7	104.3	98.1
37.5°	153.4	132.6	106.0	89.4	81.9
40°	140.5	118.9	92.3	73.6	66.5
42.5°	127.6	106.4	78.6	59.4	51.1
45°	114.3	93.5	66.1	45.7	37.0
47.5°	101.0	80.6	54.0	33.3	27.9
50°	88.1	68.6	42.0	24.5	22.9
52.5°	74.0	57.0	31.6	20.4	20.0
55°	59.9	44.9	22.4	17.5	17.0
57.5°	47.4	34.9	16.2	14.5	14.1
60°	34.1	24.9	12.5	12.1	11.6
62.5°	22.4	17.0	10.0	9.6	9.6
65°	12.1	10.4	7.9	7.5	7.9
67.5°	5.0	5.8	5.8	6.2	6.2
70°	3.3	3.7	4.6	5.0	5.0
72.5°	2.5	2.9	3.3	3.7	3.7
75°	2.1	2.1	2.5	2.9	2.9
77.5°	1.2	1.7	1.7	2.1	2.5
80°	0.8	1.2	1.2	1.7	1.7
82.5°	0.4	0.8	0.8	1.2	1.2
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	10.32	11.58	10.69	11.89	12.21	3.81	5.07	4.17	5.38	5.70
	3H	10.27	11.38	10.65	11.71	12.08	4.58	5.69	4.96	6.02	6.39
	4H	10.22	11.25	10.62	11.60	11.99	4.78	5.81	5.19	6.17	6.55
	6H	10.15	11.09	10.57	11.46	11.86	4.93	5.88	5.35	6.25	6.64
	8H	10.11	11.00	10.54	11.39	11.80	4.97	5.86	5.40	6.25	6.66
	12H	10.06	10.91	10.50	11.30	11.73	4.98	5.83	5.41	6.21	6.65
4H	2H	10.17	11.20	10.57	11.55	11.93	4.07	5.10	4.47	5.45	5.83
	3H	10.15	10.99	10.57	11.39	11.80	4.98	5.81	5.39	6.22	6.62
	4H	10.10	10.84	10.54	11.26	11.71	5.25	5.99	5.68	6.41	6.85
	6H	10.04	10.68	10.51	11.13	11.60	5.47	6.11	5.94	6.56	7.03
	8H	9.99	10.58	10.46	11.03	11.50	5.53	6.12	6.00	6.57	7.04
	12H	9.94	10.47	10.43	10.95	11.43	5.56	6.08	6.05	6.57	7.04
8H	4H	9.99	10.58	10.46	11.03	11.50	5.23	5.83	5.70	6.28	6.75
	6H	9.92	10.41	10.43	10.91	11.39	5.51	5.99	6.01	6.49	6.97
	8H	9.87	10.31	10.40	10.82	11.32	5.61	6.05	6.13	6.56	7.06
	12H	9.83	10.22	10.35	10.71	11.29	5.68	6.06	6.19	6.56	7.13
12H	4H	9.94	10.46	10.43	10.95	11.42	5.19	5.72	5.68	6.20	6.68
	6H	9.86	10.30	10.39	10.82	11.31	5.47	5.90	5.99	6.42	6.92
	8H	9.83	10.22	10.35	10.71	11.29	5.60	5.99	6.12	6.48	7.05