

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059095

Luminaire Tested: S123RDR-S1165D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059095  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D835-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

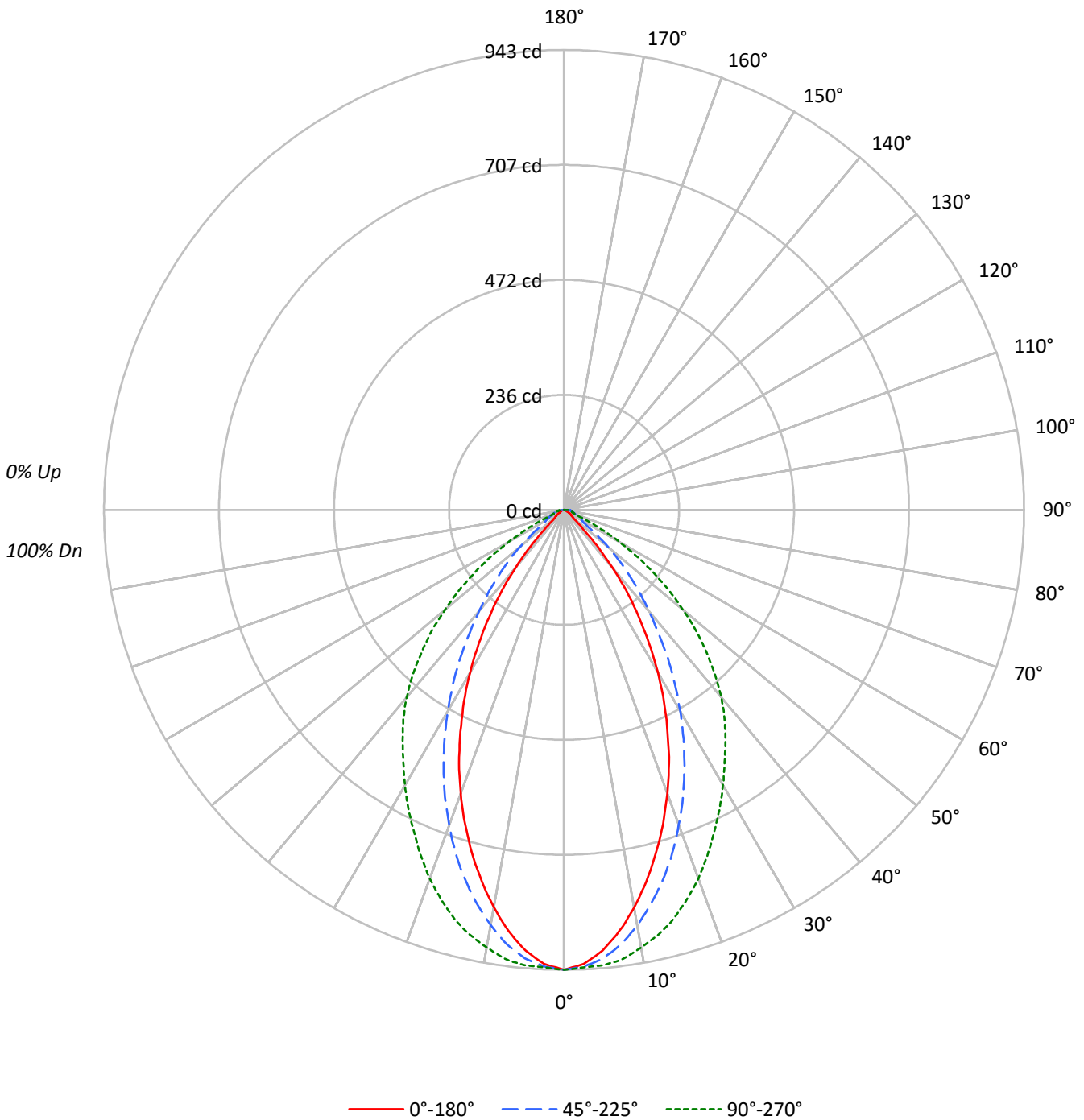
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1133.0 lumens  
Efficiency: N/A  
Efficacy: 27.1 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): 41.8  
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	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	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	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	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
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	41	40

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11075	11075	11075
5°	10693	10880	11049
10°	9870	10317	10868
15°	8854	9538	10554
20°	7731	8596	10057
25°	6503	7568	9436
30°	5222	6453	8839
35°	3825	5314	8270
40°	2365	4134	7693
45°	910	3114	6850
50°	448	2134	5796
55°	354	1181	4547
60°	237	982	3048
65°	200	881	1361
70°	199	793	793
75°	263	848	785
80°	392	1075	879
85°	579	1751	1172

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6850 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.5	7.6
10°-20°	221.4	19.5
20°-30°	274.8	24.3
30°-40°	246.2	21.7
40°-50°	161.8	14.3
50°-60°	81.1	7.2
60°-70°	32.0	2.8
70°-80°	17.9	1.6
80°-90°	11.3	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°	582.7	51.4
0°-40°	828.9	73.2
0°-60°	1071.8	94.6
0°-90°	1133.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1133.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	907	922	923	929	937	84
15°	728	751	785	838	868	203
25°	502	534	584	666	728	229
35°	267	303	371	485	577	165
45°	55	91	188	316	412	52
55°	17	20	58	156	222	15
65°	7	20	32	40	49	7
75°	6	19	19	17	17	6
85°	4	13	13	13	9	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	943.2	943.2	943.2	943.2	943.2
2.5°	931.7	944.7	937.4	937.4	938.9
5°	907.2	921.6	923.0	928.8	937.4
7.5°	871.1	889.9	898.5	915.8	928.8
10°	827.8	848.0	865.3	895.6	911.5
12.5°	780.2	800.4	826.4	868.2	892.7
15°	728.3	751.4	784.6	837.9	868.2
17.5°	675.0	698.0	738.4	799.0	837.9
20°	618.7	644.7	687.9	757.2	804.8
22.5°	562.5	591.3	637.5	712.5	767.3
25°	501.9	533.6	584.1	666.3	728.3
27.5°	444.2	477.4	530.7	620.2	690.8
30°	385.1	418.2	475.9	572.6	651.9
32.5°	324.5	362.0	422.6	527.9	612.9
35°	266.8	302.9	370.7	484.6	576.9
37.5°	210.6	246.6	317.3	442.8	540.8
40°	154.3	191.8	269.7	402.4	501.9
42.5°	101.0	139.9	227.9	362.0	458.6
45°	54.8	90.9	187.5	315.8	412.5
47.5°	30.3	49.0	151.4	272.6	367.8
50°	24.5	27.4	116.8	232.2	317.3
52.5°	20.2	23.1	83.6	193.3	271.1
55°	17.3	20.2	57.7	155.8	222.1
57.5°	14.4	17.3	46.2	119.7	174.5
60°	10.1	17.3	41.8	88.0	129.8
62.5°	8.7	17.3	36.1	60.6	86.5
65°	7.2	20.2	31.7	40.4	49.0
67.5°	5.8	20.2	27.4	26.0	26.0
70°	5.8	20.2	23.1	21.6	23.1
72.5°	5.8	21.6	21.6	20.2	20.2
75°	5.8	18.7	18.7	17.3	17.3
77.5°	5.8	17.3	17.3	15.9	15.9
80°	5.8	15.9	15.9	14.4	13.0
82.5°	5.8	14.4	14.4	13.0	11.5
85°	4.3	13.0	13.0	13.0	8.7
87.5°	4.3	11.5	13.0	11.5	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)