

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: P1059101

Luminaire Tested: S123RDRP-S1165D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059101  
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-S1165D835-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: -

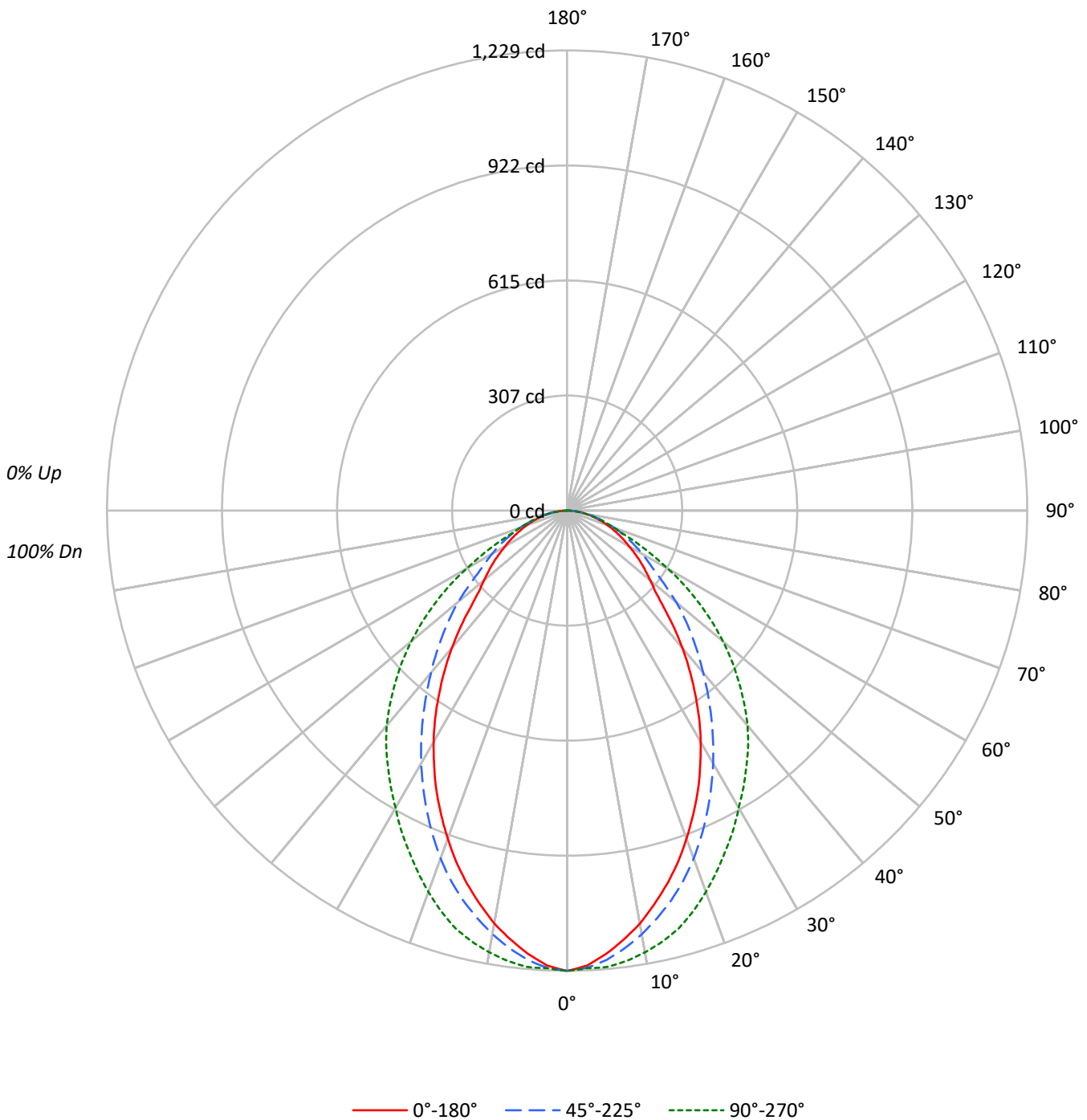
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2220.7 lumens  
Efficiency: N/A  
Efficacy: 53.1 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): 41.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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	66	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°	14436	14436	14436
5°	14015	14203	14423
10°	13353	13697	14281
15°	12544	13088	14034
20°	11653	12355	13543
25°	10699	11485	12978
30°	9673	10572	12428
35°	8532	9607	11962
40°	7335	8661	11489
45°	6031	7802	10771
50°	5292	6951	9927
55°	4897	5931	8793
60°	4502	5448	7278
65°	4204	5007	5726
70°	3959	4553	4553
75°	3729	4183	3924
80°	3510	3800	3313
85°	3301	3692	2519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10771 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.7	5.1
10°-20°	304.7	13.7
20°-30°	413.2	18.6
30°-40°	432.0	19.5
40°-50°	374.7	16.9
50°-60°	278.7	12.6
60°-70°	178.8	8.1
70°-80°	95.9	4.3
80°-90°	29.0	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°	831.6	37.4
0°-40°	1263.6	56.9
0°-60°	1917.0	86.3
0°-90°	2220.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2220.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1189	1209	1205	1214	1224	111
15°	1032	1056	1077	1120	1154	289
25°	826	852	886	946	1002	379
35°	595	624	670	755	834	372
45°	363	391	470	571	649	286
55°	239	245	290	372	430	214
65°	151	164	180	192	206	151
75°	82	95	92	88	86	87
85°	24	30	27	23	19	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1229.4	1229.4	1229.4	1229.4	1229.4
2.5°	1216.4	1233.7	1222.2	1222.2	1223.6
5°	1189.0	1209.2	1204.9	1213.5	1223.6
7.5°	1155.9	1177.5	1178.9	1199.1	1213.5
10°	1119.9	1141.5	1148.7	1177.5	1197.7
12.5°	1076.6	1101.1	1114.1	1150.1	1178.9
15°	1031.9	1056.4	1076.6	1119.9	1154.4
17.5°	984.4	1008.9	1034.8	1083.8	1121.3
20°	932.5	958.4	988.7	1037.7	1083.8
22.5°	879.2	906.5	938.3	991.6	1043.5
25°	825.8	851.8	886.4	945.5	1001.7
27.5°	769.6	797.0	833.0	897.9	961.3
30°	713.4	740.8	779.7	848.9	916.6
32.5°	655.8	683.2	725.0	802.8	876.3
35°	595.2	624.1	670.2	755.2	834.5
37.5°	537.6	565.0	616.9	710.5	794.1
40°	478.5	507.3	565.0	665.9	749.5
42.5°	420.8	449.7	517.4	618.3	700.4
45°	363.2	390.6	469.8	570.7	648.6
47.5°	318.5	338.7	425.2	520.3	598.1
50°	289.7	296.9	380.5	471.3	543.4
52.5°	263.7	269.5	331.5	422.3	487.1
55°	239.2	245.0	289.7	371.8	429.5
57.5°	214.7	222.0	258.0	320.0	371.8
60°	191.7	200.3	232.0	273.8	309.9
62.5°	171.5	181.6	206.1	232.0	256.5
65°	151.3	164.3	180.2	191.7	206.1
67.5°	132.6	147.0	155.7	158.5	160.0
70°	115.3	129.7	132.6	132.6	132.6
72.5°	98.0	113.9	111.0	109.5	108.1
75°	82.2	95.1	92.2	87.9	86.5
77.5°	66.3	77.8	73.5	70.6	66.3
80°	51.9	60.5	56.2	53.3	49.0
82.5°	38.9	44.7	40.4	37.5	33.1
85°	24.5	30.3	27.4	23.1	18.7
87.5°	13.0	17.3	14.4	13.0	7.2
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	16.06	17.54	16.43	17.86	18.17	18.82	20.30	19.18	20.61	20.93
	3H	17.77	19.10	18.15	19.43	19.79	19.84	21.17	20.22	21.50	21.86
	4H	18.43	19.68	18.83	20.03	20.41	20.20	21.45	20.60	21.80	22.18
	6H	18.93	20.08	19.35	20.45	20.84	20.46	21.61	20.87	21.98	22.37
	8H	19.11	20.21	19.54	20.60	21.00	20.53	21.62	20.96	22.01	22.42
	12H	19.24	20.29	19.67	20.67	21.10	20.56	21.61	21.00	21.99	22.42
4H	2H	16.84	18.08	17.24	18.43	18.81	19.09	20.33	19.49	20.68	21.06
	3H	18.76	19.80	19.17	20.20	20.60	20.34	21.38	20.75	21.78	22.18
	4H	19.57	20.50	20.01	20.92	21.36	20.83	21.76	21.26	22.18	22.62
	6H	20.21	21.02	20.67	21.46	21.93	21.21	22.02	21.67	22.46	22.92
	8H	20.44	21.20	20.91	21.64	22.11	21.32	22.08	21.79	22.52	22.99
	12H	20.61	21.29	21.10	21.77	22.24	21.39	22.07	21.88	22.55	23.02
8H	4H	19.89	20.65	20.36	21.09	21.56	21.02	21.78	21.49	22.22	22.69
	6H	20.69	21.31	21.18	21.80	22.28	21.51	22.13	22.01	22.63	23.10
	8H	21.01	21.57	21.53	22.08	22.57	21.68	22.25	22.20	22.76	23.24
	12H	21.29	21.79	21.80	22.28	22.84	21.82	22.31	22.33	22.81	23.37
12H	4H	19.92	20.59	20.40	21.07	21.54	21.04	21.71	21.52	22.19	22.66
	6H	20.74	21.30	21.25	21.81	22.30	21.55	22.11	22.06	22.62	23.11
	8H	21.13	21.63	21.64	22.12	22.69	21.78	22.27	22.29	22.76	23.33