

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: P1059108

Luminaire Tested: S123RDR-S1165D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059108  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D840-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

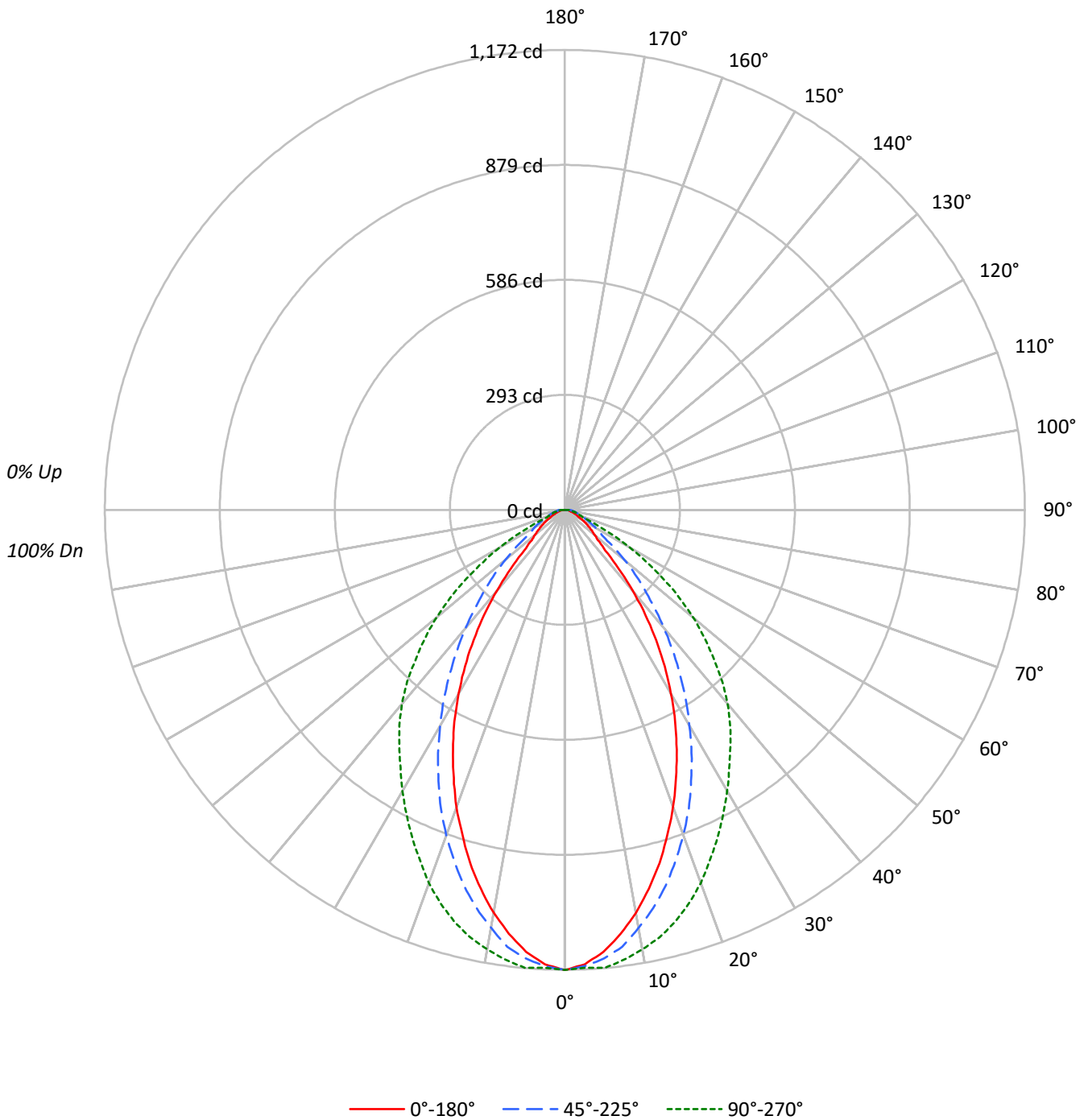
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1574.0 lumens  
Efficiency: N/A  
Efficacy: 37.7 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
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	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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				

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

	0°	45°	90°
0°	13768	13768	13768
5°	13323	13528	13803
10°	12435	12904	13563
15°	11332	12058	13209
20°	10083	11029	12650
25°	8738	9870	11926
30°	7327	8610	11217
35°	5804	7328	10543
40°	4108	6029	9890
45°	2420	4764	8901
50°	1809	3619	7797
55°	1521	2444	6262
60°	1231	2085	4446
65°	972	1781	2348
70°	851	1552	1449
75°	794	1452	1388
80°	791	1576	1379
85°	984	2358	1765

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8901 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.9	6.9
10°-20°	280.4	17.8
20°-30°	357.2	22.7
30°-40°	335.9	21.3
40°-50°	242.0	15.4
50°-60°	139.7	8.9
60°-70°	63.9	4.1
70°-80°	31.9	2.0
80°-90°	15.1	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°	745.5	47.4
0°-40°	1081.4	68.7
0°-60°	1463.1	93.0
0°-90°	1574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1574.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1130	1149	1148	1159	1171	105
15°	932	966	992	1047	1087	260
25°	674	709	762	846	920	308
35°	405	440	511	629	736	251
45°	146	182	287	431	536	123
55°	74	77	119	227	306	67
65°	35	50	64	71	84	36
75°	18	34	32	31	31	19
85°	7	16	18	16	13	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1172.5	1172.5	1172.5	1172.5	1172.5
2.5°	1159.4	1173.9	1163.8	1165.2	1168.1
5°	1130.3	1149.2	1147.7	1159.4	1171.0
7.5°	1089.5	1111.3	1123.0	1140.4	1156.5
10°	1042.9	1067.6	1082.2	1114.2	1137.5
12.5°	989.0	1021.0	1039.9	1082.2	1115.7
15°	932.2	965.7	991.9	1047.2	1086.6
17.5°	868.1	904.5	938.0	1003.5	1051.6
20°	806.9	841.9	882.6	954.0	1012.3
22.5°	739.9	777.8	824.4	900.1	965.7
25°	674.4	709.3	761.8	846.2	920.5
27.5°	608.8	643.8	699.1	792.3	873.9
30°	540.4	576.8	635.0	738.5	827.3
32.5°	473.4	508.3	573.9	686.0	779.2
35°	404.9	439.9	511.2	629.2	735.5
37.5°	337.9	374.3	450.1	582.6	691.8
40°	268.0	307.3	393.3	534.5	645.2
42.5°	202.5	244.7	336.5	485.0	594.3
45°	145.7	182.1	286.9	431.1	536.0
47.5°	113.6	132.5	241.8	375.8	482.1
50°	99.0	102.0	198.1	324.8	426.8
52.5°	85.9	88.8	155.8	276.7	368.5
55°	74.3	77.2	119.4	227.2	305.9
57.5°	62.6	67.0	99.0	180.6	246.2
60°	52.4	58.3	88.8	138.4	189.3
62.5°	42.2	52.4	75.7	102.0	135.5
65°	35.0	49.5	64.1	71.4	84.5
67.5°	29.1	45.2	53.9	51.0	49.5
70°	24.8	40.8	45.2	40.8	42.2
72.5°	20.4	37.9	37.9	35.0	35.0
75°	17.5	33.5	32.0	30.6	30.6
77.5°	14.6	29.1	27.7	26.2	24.8
80°	11.7	23.3	23.3	21.8	20.4
82.5°	10.2	18.9	18.9	18.9	16.0
85°	7.3	16.0	17.5	16.0	13.1
87.5°	5.8	14.6	14.6	13.1	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)