

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: P1059113

Luminaire Tested: S123RDRP-S1165D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059113
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: S123RDRP-S1165D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

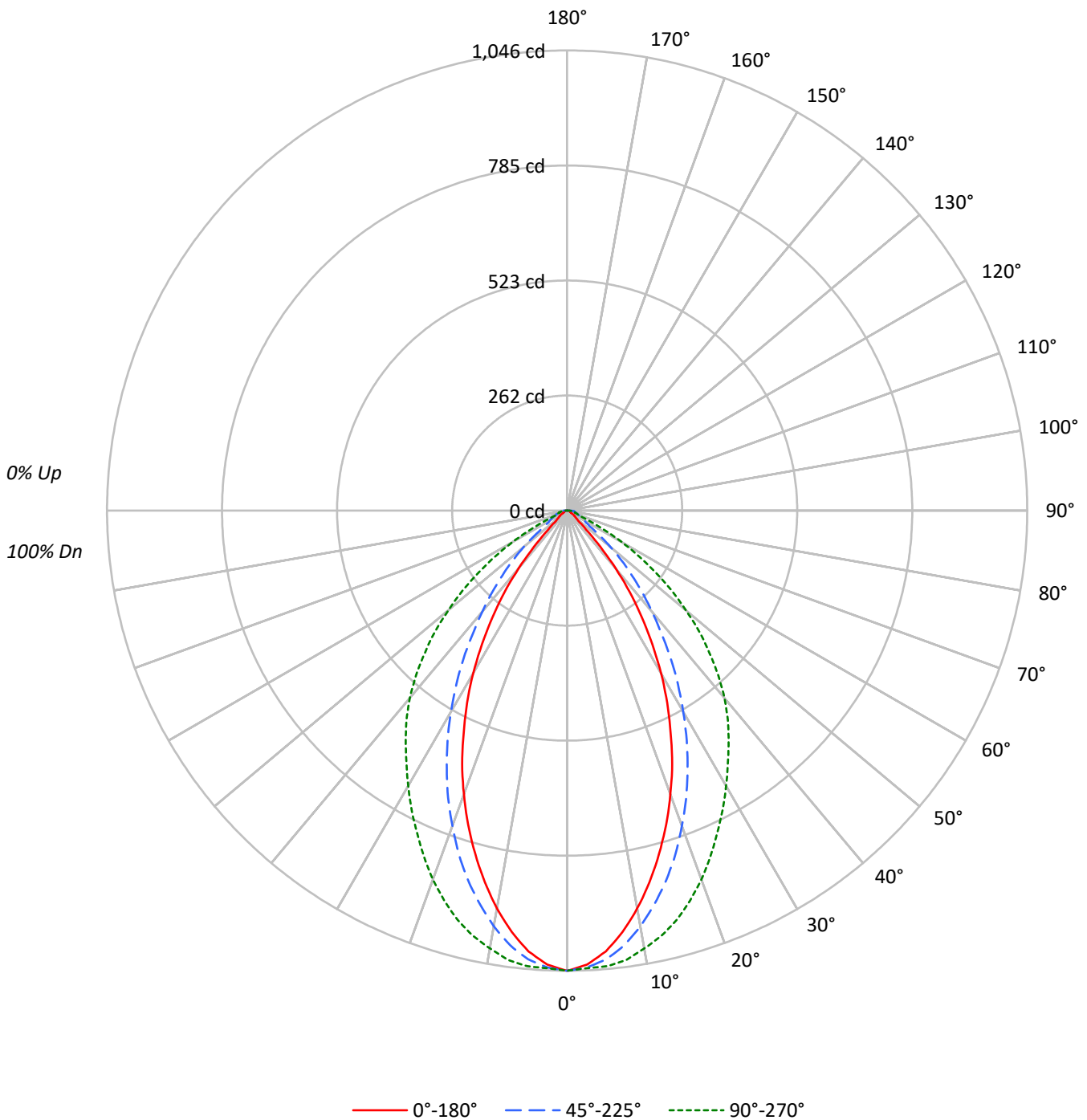
Lumens per Lamp: N/A
Luminaire Lumens: 1256.5 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (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	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					100			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55					55			
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50					50			
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46					46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12283	12283	12283
5°	11858	12065	12254
10°	10947	11443	12052
15°	9819	10578	11706
20°	8575	9533	11153
25°	7212	8393	10465
30°	5790	7156	9802
35°	4242	5893	9171
40°	2623	4585	8532
45°	1010	3452	7596
50°	497	2368	6429
55°	393	1310	5042
60°	263	1090	3379
65°	222	978	1512
70°	220	879	879
75°	290	944	871
80°	433	1190	974
85°	647	1940	1293

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7596 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	7.6
10°-20°	245.6	19.5
20°-30°	304.7	24.3
30°-40°	273.0	21.7
40°-50°	179.5	14.3
50°-60°	89.9	7.2
60°-70°	35.5	2.8
70°-80°	19.9	1.6
80°-90°	12.5	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°	646.2	51.4
0°-40°	919.2	73.2
0°-60°	1188.6	94.6
0°-90°	1256.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1256.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1046	1046	1046	1046	1046	
5°	1006	1022	1024	1030	1040	93
15°	808	833	870	929	963	225
25°	557	592	648	739	808	254
35°	296	336	411	537	640	184
45°	61	101	208	350	457	58
55°	19	22	64	173	246	17
65°	8	22	35	45	54	8
75°	6	21	21	19	19	7
85°	5	14	14	14	10	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1046.0	1046.0	1046.0	1046.0	1046.0
2.5°	1033.2	1047.6	1039.6	1039.6	1041.2
5°	1006.0	1022.0	1023.6	1030.0	1039.6
7.5°	966.1	986.8	996.4	1015.6	1030.0
10°	918.1	940.5	959.7	993.2	1010.8
12.5°	865.3	887.7	916.5	962.9	990.0
15°	807.7	833.3	870.1	929.3	962.9
17.5°	748.5	774.1	818.9	886.1	929.3
20°	686.2	714.9	762.9	839.7	892.5
22.5°	623.8	655.8	706.9	790.1	850.9
25°	556.6	591.8	647.8	738.9	807.7
27.5°	492.6	529.4	588.6	687.8	766.1
30°	427.0	463.8	527.8	635.0	722.9
32.5°	359.9	401.5	468.6	585.4	679.8
35°	295.9	335.9	411.1	537.4	639.8
37.5°	233.5	273.5	351.9	491.0	599.8
40°	171.1	212.7	299.1	446.2	556.6
42.5°	112.0	155.1	252.7	401.5	508.6
45°	60.8	100.8	207.9	350.3	457.4
47.5°	33.6	54.4	167.9	302.3	407.9
50°	27.2	30.4	129.6	257.5	351.9
52.5°	22.4	25.6	92.8	214.3	300.7
55°	19.2	22.4	64.0	172.7	246.3
57.5°	16.0	19.2	51.2	132.8	193.5
60°	11.2	19.2	46.4	97.6	143.9
62.5°	9.6	19.2	40.0	67.2	96.0
65°	8.0	22.4	35.2	44.8	54.4
67.5°	6.4	22.4	30.4	28.8	28.8
70°	6.4	22.4	25.6	24.0	25.6
72.5°	6.4	24.0	24.0	22.4	22.4
75°	6.4	20.8	20.8	19.2	19.2
77.5°	6.4	19.2	19.2	17.6	17.6
80°	6.4	17.6	17.6	16.0	14.4
82.5°	6.4	16.0	16.0	14.4	12.8
85°	4.8	14.4	14.4	14.4	9.6
87.5°	4.8	12.8	14.4	12.8	8.0
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	1.17	2.43	1.54	2.74	3.06	15.26	16.52	15.63	16.83	17.15
	3H	3.70	4.81	4.08	5.14	5.51	15.34	16.45	15.72	16.78	17.15
	4H	4.87	5.90	5.27	6.25	6.64	15.40	16.44	15.81	16.79	17.18
	6H	5.92	6.87	6.33	7.24	7.63	15.50	16.45	15.92	16.82	17.22
	8H	6.46	7.36	6.89	7.75	8.15	15.56	16.46	15.99	16.85	17.26
	12H	6.94	7.80	7.37	8.18	8.61	15.63	16.49	16.07	16.88	17.31
4H	2H	4.44	5.47	4.84	5.82	6.21	15.12	16.16	15.53	16.51	16.89
	3H	6.90	7.74	7.31	8.15	8.55	15.30	16.14	15.71	16.55	16.95
	4H	8.24	9.00	8.68	9.42	9.86	15.42	16.18	15.86	16.60	17.05
	6H	9.38	10.03	9.84	10.48	10.94	15.64	16.29	16.10	16.74	17.21
	8H	9.89	10.50	10.36	10.94	11.42	15.76	16.38	16.24	16.82	17.30
	12H	10.34	10.88	10.83	11.37	11.84	15.92	16.46	16.41	16.95	17.42
8H	4H	9.16	9.77	9.63	10.22	10.69	15.43	16.04	15.90	16.49	16.96
	6H	10.76	11.26	11.26	11.76	12.24	15.76	16.26	16.26	16.76	17.24
	8H	11.59	12.04	12.11	12.55	13.05	15.99	16.44	16.51	16.95	17.45
	12H	12.37	12.76	12.88	13.26	13.83	16.31	16.71	16.83	17.21	17.78
12H	4H	9.33	9.87	9.82	10.35	10.83	15.42	15.96	15.90	16.44	16.91
	6H	11.08	11.53	11.60	12.04	12.54	15.79	16.24	16.31	16.76	17.25
	8H	12.08	12.48	12.60	12.98	13.55	16.10	16.50	16.61	16.99	17.57