

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: P1059441

Luminaire Tested: S123RDRP-H1000D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059441
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: S123RDRP-H1000D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

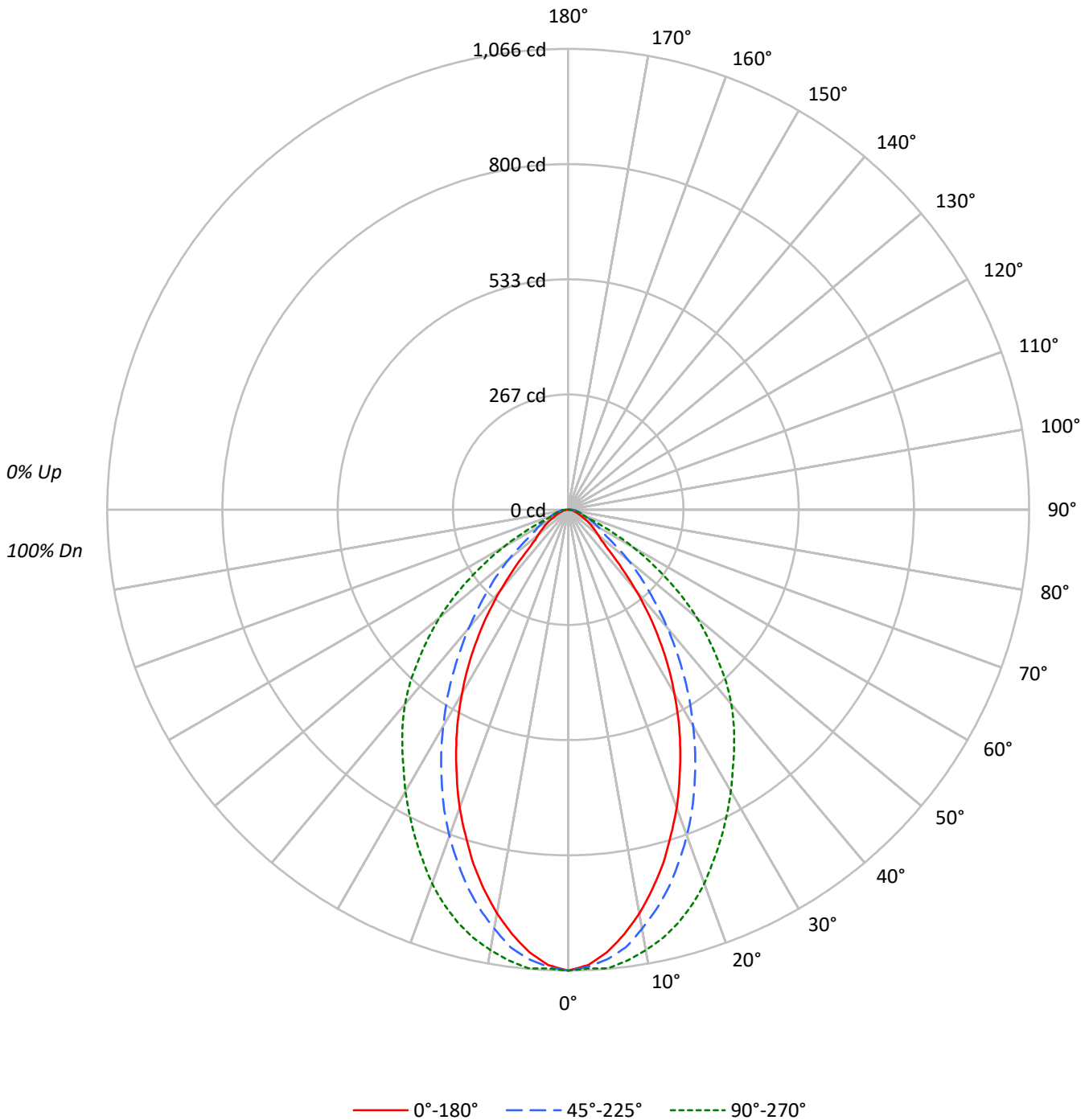
Lumens per Lamp: N/A
Luminaire Lumens: 1431.3 lumens
Efficiency: N/A
Efficacy: 45.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12520	12520	12520
5°	12115	12302	12552
10°	11307	11734	12334
15°	10305	10965	12012
20°	9170	10029	11503
25°	7945	8975	10846
30°	6663	7830	10200
35°	5278	6664	9589
40°	3736	5482	8993
45°	2199	4333	8094
50°	1646	3290	7090
55°	1382	2223	5693
60°	1120	1898	4044
65°	884	1620	2134
70°	772	1411	1318
75°	721	1320	1261
80°	717	1434	1251
85°	889	2142	1603

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8094 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	6.9
10°-20°	255.0	17.8
20°-30°	324.8	22.7
30°-40°	305.5	21.3
40°-50°	220.0	15.4
50°-60°	127.1	8.9
60°-70°	58.1	4.1
70°-80°	29.0	2.0
80°-90°	13.7	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°	677.9	47.4
0°-40°	983.4	68.7
0°-60°	1330.5	93.0
0°-90°	1431.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1431.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1028	1045	1044	1054	1065	96
15°	848	878	902	952	988	236
25°	613	645	693	770	837	280
35°	368	400	465	572	669	228
45°	132	166	261	392	487	112
55°	68	70	109	207	278	61
65°	32	45	58	65	77	33
75°	16	30	29	28	28	17
85°	7	15	16	15	12	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.2	1066.2	1066.2	1066.2	1066.2
2.5°	1054.3	1067.5	1058.3	1059.6	1062.2
5°	1027.8	1045.0	1043.7	1054.3	1064.9
7.5°	990.7	1010.6	1021.2	1037.1	1051.6
10°	948.3	970.8	984.1	1013.2	1034.4
12.5°	899.3	928.5	945.7	984.1	1014.6
15°	847.7	878.1	902.0	952.3	988.1
17.5°	789.4	822.5	853.0	912.6	956.3
20°	733.8	765.5	802.6	867.5	920.5
22.5°	672.8	707.3	749.7	818.5	878.1
25°	613.2	645.0	692.7	769.5	837.1
27.5°	553.6	585.4	635.7	720.5	794.7
30°	491.4	524.5	577.5	671.5	752.3
32.5°	430.5	462.2	521.8	623.8	708.6
35°	368.2	400.0	464.9	572.2	668.9
37.5°	307.3	340.4	409.3	529.8	629.1
40°	243.7	279.5	357.6	486.1	586.7
42.5°	184.1	222.5	306.0	441.1	540.4
45°	132.4	165.6	260.9	392.0	487.4
47.5°	103.3	120.5	219.9	341.7	438.4
50°	90.1	92.7	180.1	295.4	388.1
52.5°	78.1	80.8	141.7	251.7	335.1
55°	67.5	70.2	108.6	206.6	278.1
57.5°	57.0	60.9	90.1	164.2	223.8
60°	47.7	53.0	80.8	125.8	172.2
62.5°	38.4	47.7	68.9	92.7	123.2
65°	31.8	45.0	58.3	64.9	76.8
67.5°	26.5	41.1	49.0	46.4	45.0
70°	22.5	37.1	41.1	37.1	38.4
72.5°	18.5	34.4	34.4	31.8	31.8
75°	15.9	30.5	29.1	27.8	27.8
77.5°	13.2	26.5	25.2	23.8	22.5
80°	10.6	21.2	21.2	19.9	18.5
82.5°	9.3	17.2	17.2	17.2	14.6
85°	6.6	14.6	15.9	14.6	11.9
87.5°	5.3	13.2	13.2	11.9	7.9
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	8.75	10.07	9.12	10.38	10.70	16.11	17.43	16.48	17.74	18.06
	3H	10.14	11.31	10.52	11.64	12.00	16.34	17.51	16.72	17.84	18.21
	4H	10.69	11.78	11.10	12.13	12.52	16.46	17.55	16.86	17.90	18.28
	6H	11.13	12.13	11.54	12.50	12.89	16.57	17.57	16.99	17.94	18.34
	8H	11.30	12.25	11.73	12.64	13.05	16.62	17.57	17.05	17.96	18.37
	12H	11.46	12.37	11.89	12.75	13.18	16.68	17.59	17.12	17.97	18.40
4H	2H	9.85	10.94	10.25	11.29	11.68	16.07	17.16	16.47	17.51	17.90
	3H	11.51	12.41	11.93	12.81	13.21	16.43	17.33	16.84	17.73	18.13
	4H	12.33	13.13	12.76	13.54	13.99	16.63	17.43	17.06	17.85	18.29
	6H	12.96	13.65	13.42	14.10	14.56	16.86	17.55	17.32	17.99	18.46
	8H	13.20	13.84	13.66	14.29	14.76	16.96	17.61	17.43	18.05	18.52
	12H	13.41	13.98	13.90	14.46	14.94	17.09	17.66	17.57	18.14	18.62
8H	4H	12.77	13.41	13.24	13.86	14.33	16.67	17.31	17.14	17.76	18.23
	6H	13.68	14.21	14.18	14.70	15.19	16.99	17.52	17.50	18.02	18.50
	8H	14.10	14.57	14.62	15.09	15.58	17.18	17.66	17.71	18.18	18.67
	12H	14.51	14.94	15.03	15.43	16.00	17.43	17.86	17.95	18.35	18.92
12H	4H	12.82	13.40	13.31	13.88	14.35	16.66	17.23	17.14	17.71	18.18
	6H	13.81	14.29	14.33	14.80	15.30	17.01	17.49	17.53	18.00	18.49
	8H	14.35	14.77	14.86	15.27	15.84	17.27	17.69	17.78	18.18	18.75