

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: P1059029

Luminaire Tested: S123RDRP-S1000D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059029
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-S1000D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

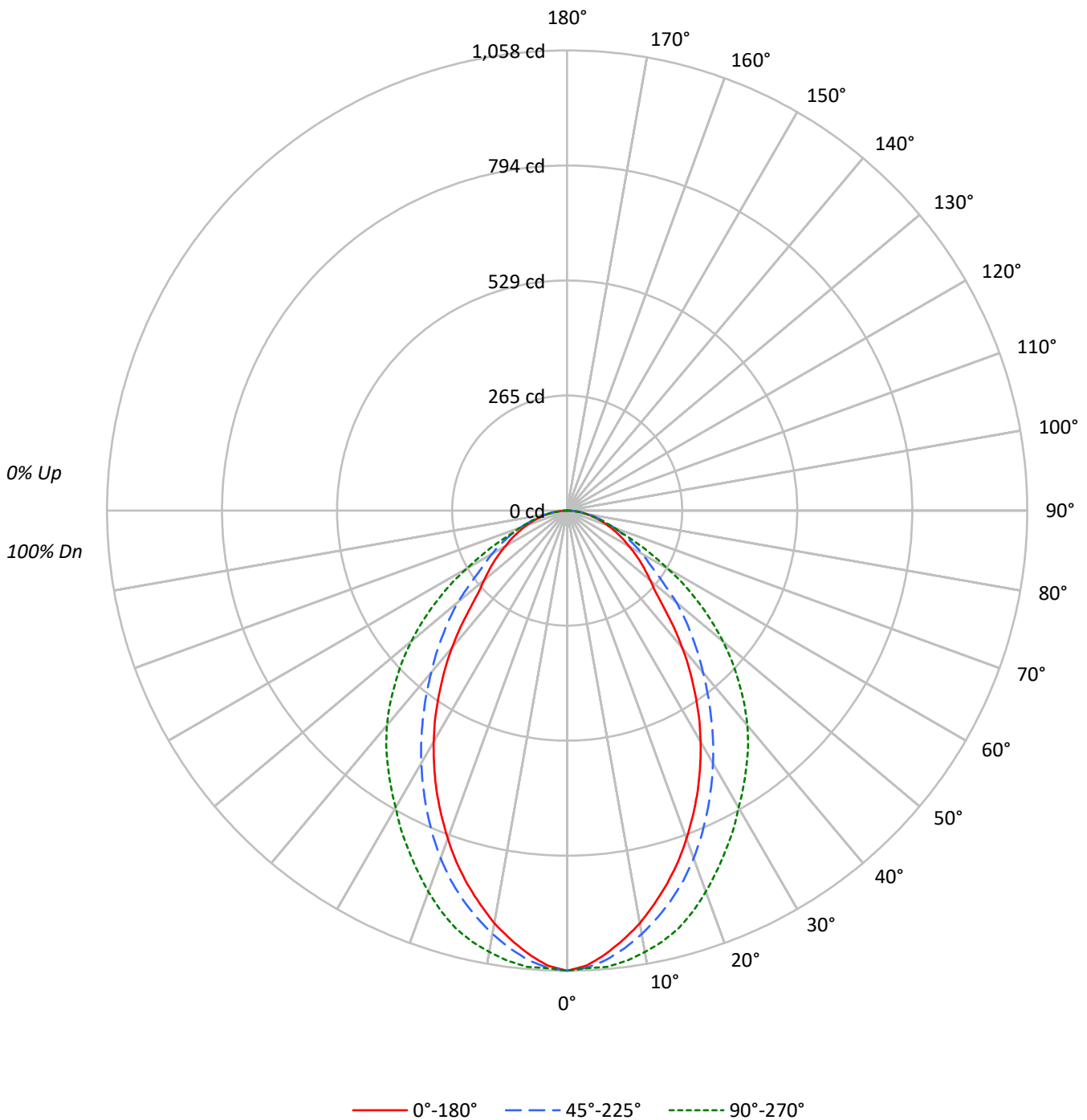
Lumens per Lamp: N/A
Luminaire Lumens: 1910.9 lumens
Efficiency: N/A
Efficacy: 54.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87			
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51					51			
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41					41			
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34					34			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31					31			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12422	12422	12422
5°	12060	12221	12411
10°	11490	11785	12288
15°	10795	11262	12076
20°	10027	10632	11654
25°	9207	9882	11167
30°	8324	9097	10695
35°	7342	8267	10294
40°	6311	7451	9885
45°	5189	6714	9268
50°	4554	5981	8540
55°	4215	5104	7567
60°	3873	4690	6261
65°	3618	4307	4926
70°	3406	3917	3917
75°	3208	3602	3375
80°	3016	3273	2854
85°	2843	3180	2169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9268 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	5.1
10°-20°	262.2	13.7
20°-30°	355.5	18.6
30°-40°	371.7	19.5
40°-50°	322.4	16.9
50°-60°	239.8	12.6
60°-70°	153.9	8.1
70°-80°	82.5	4.3
80°-90°	24.9	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°	715.6	37.4
0°-40°	1087.3	56.9
0°-60°	1649.5	86.3
0°-90°	1910.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1910.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1058	1058	1058	1058	1058	
5°	1023	1040	1037	1044	1053	96
15°	888	909	926	964	993	249
25°	711	733	763	814	862	326
35°	512	537	577	650	718	320
45°	312	336	404	491	558	246
55°	206	211	249	320	370	184
65°	130	141	155	165	177	130
75°	71	82	79	76	74	75
85°	21	26	24	20	16	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1057.9	1057.9	1057.9	1057.9	1057.9
2.5°	1046.7	1061.6	1051.7	1051.7	1052.9
5°	1023.1	1040.5	1036.8	1044.2	1052.9
7.5°	994.6	1013.2	1014.5	1031.8	1044.2
10°	963.6	982.2	988.4	1013.2	1030.6
12.5°	926.4	947.5	958.7	989.7	1014.5
15°	888.0	909.0	926.4	963.6	993.4
17.5°	847.0	868.1	890.4	932.6	964.9
20°	802.4	824.7	850.8	892.9	932.6
22.5°	756.5	780.1	807.4	853.2	897.9
25°	710.6	732.9	762.7	813.6	861.9
27.5°	662.3	685.8	716.8	772.6	827.2
30°	613.9	637.5	670.9	730.5	788.8
32.5°	564.3	587.8	623.8	690.8	754.0
35°	512.2	537.0	576.7	649.9	718.1
37.5°	462.6	486.1	530.8	611.4	683.3
40°	411.7	436.5	486.1	573.0	644.9
42.5°	362.1	386.9	445.2	532.0	602.7
45°	312.5	336.1	404.3	491.1	558.1
47.5°	274.1	291.4	365.9	447.7	514.7
50°	249.3	255.5	327.4	405.5	467.5
52.5°	227.0	231.9	285.2	363.4	419.2
55°	205.9	210.8	249.3	320.0	369.6
57.5°	184.8	191.0	222.0	275.3	320.0
60°	164.9	172.4	199.7	235.6	266.6
62.5°	147.6	156.3	177.3	199.7	220.8
65°	130.2	141.4	155.0	164.9	177.3
67.5°	114.1	126.5	133.9	136.4	137.7
70°	99.2	111.6	114.1	114.1	114.1
72.5°	84.3	98.0	95.5	94.3	93.0
75°	70.7	81.9	79.4	75.7	74.4
77.5°	57.0	67.0	63.2	60.8	57.0
80°	44.6	52.1	48.4	45.9	42.2
82.5°	33.5	38.4	34.7	32.2	28.5
85°	21.1	26.0	23.6	19.8	16.1
87.5°	11.2	14.9	12.4	11.2	6.2
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	15.54	17.02	15.90	17.34	17.65	18.30	19.78	18.66	20.09	20.41
	3H	17.25	18.58	17.63	18.91	19.27	19.32	20.64	19.69	20.97	21.34
	4H	17.91	19.16	18.31	19.50	19.88	19.68	20.93	20.08	21.28	21.66
	6H	18.41	19.56	18.82	19.93	20.32	19.94	21.09	20.35	21.45	21.85
	8H	18.59	19.68	19.02	20.07	20.47	20.01	21.10	20.43	21.49	21.89
	12H	18.72	19.76	19.15	20.15	20.57	20.04	21.09	20.47	21.47	21.90
4H	2H	16.32	17.56	16.72	17.91	18.29	18.57	19.81	18.97	20.16	20.54
	3H	18.24	19.27	18.65	19.67	20.08	19.82	20.85	20.23	21.25	21.66
	4H	19.05	19.98	19.48	20.40	20.84	20.31	21.24	20.74	21.65	22.09
	6H	19.69	20.50	20.15	20.94	21.40	20.69	21.50	21.15	21.94	22.40
	8H	19.92	20.67	20.38	21.12	21.59	20.80	21.56	21.26	22.00	22.47
	12H	20.09	20.77	20.58	21.25	21.72	20.87	21.54	21.35	22.02	22.50
8H	4H	19.37	20.13	19.83	20.57	21.04	20.50	21.25	20.96	21.70	22.17
	6H	20.16	20.79	20.66	21.28	21.76	20.99	21.61	21.49	22.10	22.58
	8H	20.49	21.05	21.01	21.56	22.05	21.16	21.72	21.68	22.23	22.72
	12H	20.77	21.26	21.28	21.76	22.32	21.30	21.79	21.81	22.28	22.85
12H	4H	19.40	20.07	19.88	20.55	21.02	20.51	21.19	21.00	21.67	22.14
	6H	20.22	20.78	20.73	21.29	21.78	21.02	21.59	21.54	22.10	22.58
	8H	20.61	21.11	21.12	21.60	22.16	21.25	21.75	21.76	22.24	22.81