

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: P1059237

Luminaire Tested: S123RDRP-S340D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059237
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D940-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

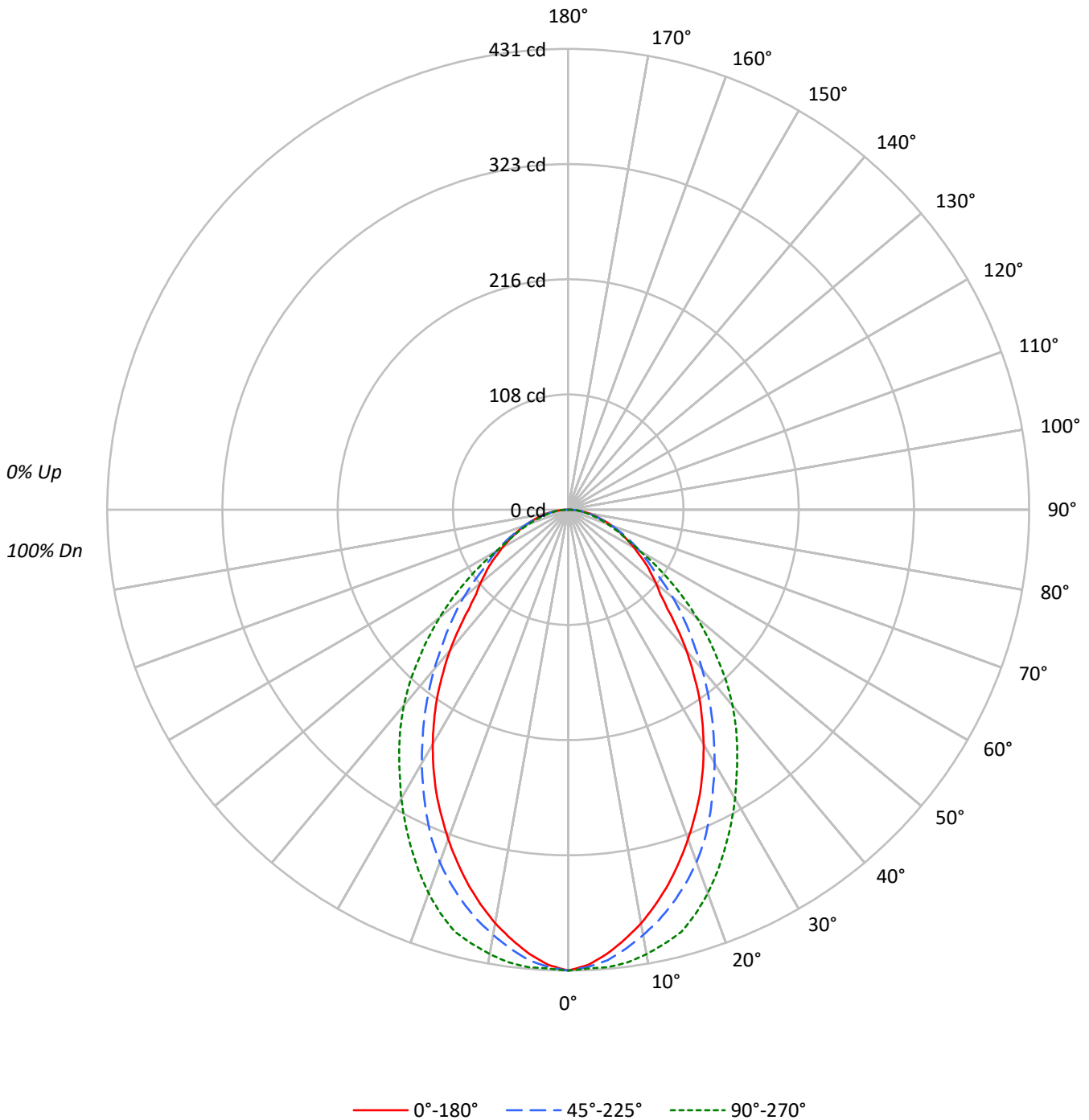
Lumens per Lamp: N/A
Luminaire Lumens: 757.4 lumens
Efficiency: N/A
Efficacy: 60.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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	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	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5061	5061	5061
5°	4914	4985	5063
10°	4684	4816	5033
15°	4406	4622	4970
20°	4097	4385	4770
25°	3782	4066	4508
30°	3434	3712	4230
35°	3058	3350	3951
40°	2638	2984	3662
45°	2180	2642	3283
50°	1958	2331	2866
55°	1816	1990	2377
60°	1672	1813	1820
65°	1556	1639	1525
70°	1466	1490	1336
75°	1379	1329	1180
80°	1305	1204	1102
85°	1253	1347	1253

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3283 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	5.3
10°-20°	107.6	14.2
20°-30°	145.5	19.2
30°-40°	149.5	19.7
40°-50°	125.6	16.6
50°-60°	90.0	11.9
60°-70°	57.3	7.6
70°-80°	31.5	4.2
80°-90°	10.5	1.4
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°	293.0	38.7
0°-40°	442.5	58.4
0°-60°	658.1	86.9
0°-90°	757.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	757.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	431	431	431	431	431	
5°	417	424	423	426	430	39
15°	362	372	380	396	409	102
25°	292	303	314	331	348	134
35°	213	225	234	254	276	133
45°	131	143	159	182	198	104
55°	89	90	97	110	116	79
65°	56	59	59	56	55	56
75°	30	33	29	27	26	32
85°	9	10	10	10	9	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	431.0	431.0	431.0	431.0	431.0
2.5°	426.2	432.1	428.1	428.4	429.5
5°	416.9	424.4	422.9	425.8	429.5
7.5°	405.4	413.6	414.0	421.0	426.9
10°	392.8	401.4	403.9	414.7	422.1
12.5°	378.0	387.3	392.8	406.2	415.8
15°	362.4	372.4	380.2	396.5	408.8
17.5°	345.3	356.1	366.1	383.5	396.2
20°	327.9	339.4	350.9	367.2	381.7
22.5°	309.7	321.6	333.5	349.4	365.4
25°	291.9	303.1	313.8	330.9	347.9
27.5°	272.6	284.1	293.4	312.3	330.1
30°	253.3	264.8	273.8	293.4	312.0
32.5°	233.3	245.2	253.3	273.8	293.0
35°	213.3	224.8	233.7	254.5	275.6
37.5°	192.1	204.8	213.7	237.0	257.8
40°	172.1	184.0	194.7	219.2	238.9
42.5°	151.3	163.6	175.8	201.0	219.2
45°	131.3	142.8	159.1	182.1	197.7
47.5°	116.8	124.3	143.2	162.5	177.3
50°	107.2	110.2	127.6	144.7	156.9
52.5°	97.6	99.8	111.7	127.2	136.5
55°	88.7	90.5	97.2	110.2	116.1
57.5°	79.0	80.9	86.4	93.8	97.2
60°	71.2	72.7	77.2	78.3	77.5
62.5°	63.4	65.7	67.9	65.3	64.2
65°	56.0	59.3	59.0	55.6	54.9
67.5°	49.3	52.7	50.8	47.5	46.4
70°	42.7	46.0	43.4	40.1	38.9
72.5°	36.4	40.1	36.0	33.0	32.3
75°	30.4	33.4	29.3	27.1	26.0
77.5°	24.9	27.1	23.4	21.5	20.8
80°	19.3	20.8	17.8	16.7	16.3
82.5°	14.1	14.8	13.0	13.7	13.4
85°	9.3	9.6	10.0	10.4	9.3
87.5°	4.5	6.3	6.3	5.9	4.8
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	12.82	14.28	13.19	14.60	14.91	13.89	15.35	14.25	15.66	15.98
	3H	14.52	15.83	14.90	16.16	16.52	14.97	16.28	15.35	16.61	16.97
	4H	15.17	16.40	15.57	16.75	17.13	15.37	16.60	15.77	16.95	17.33
	6H	15.68	16.81	16.09	17.18	17.57	15.68	16.82	16.10	17.19	17.58
	8H	15.85	16.93	16.28	17.32	17.72	15.82	16.90	16.25	17.29	17.69
	12H	15.97	17.01	16.41	17.39	17.82	15.94	16.97	16.37	17.36	17.78
4H	2H	13.42	14.65	13.82	15.00	15.38	14.29	15.52	14.69	15.87	16.25
	3H	15.35	16.37	15.76	16.77	17.17	15.61	16.63	16.02	17.03	17.43
	4H	16.16	17.08	16.59	17.49	17.93	16.13	17.05	16.56	17.46	17.90
	6H	16.81	17.61	17.27	18.05	18.51	16.56	17.36	17.02	17.80	18.26
	8H	17.03	17.78	17.50	18.22	18.69	16.75	17.50	17.22	17.94	18.41
	12H	17.20	17.87	17.69	18.35	18.82	16.94	17.60	17.42	18.08	18.55
8H	4H	16.40	17.14	16.86	17.59	18.06	16.38	17.12	16.84	17.56	18.03
	6H	17.19	17.80	17.69	18.30	18.77	16.92	17.54	17.42	18.03	18.51
	8H	17.50	18.05	18.02	18.56	19.05	17.20	17.75	17.72	18.26	18.75
	12H	17.77	18.26	18.28	18.75	19.32	17.49	17.98	18.00	18.48	19.04
12H	4H	16.41	17.08	16.89	17.55	18.03	16.40	17.07	16.88	17.55	18.02
	6H	17.22	17.78	17.74	18.29	18.78	16.98	17.53	17.49	18.04	18.53
	8H	17.60	18.09	18.11	18.58	19.14	17.32	17.81	17.83	18.30	18.86