

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: P1056483

Luminaire Tested: S125R3DR-S850D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056483
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D930-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

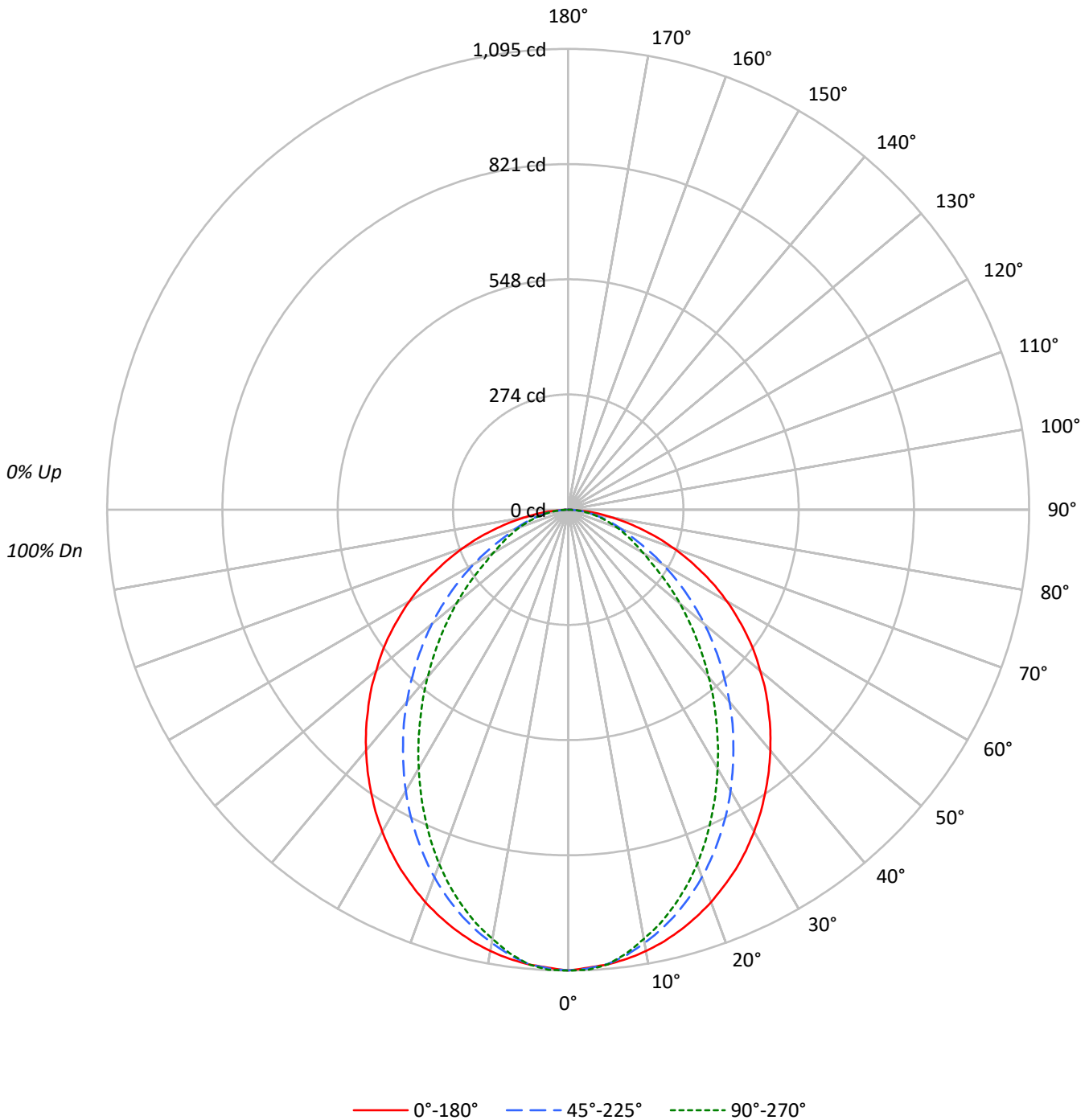
Lumens per Lamp: N/A
Luminaire Lumens: 2320.7 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86													86															
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73													73															
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63													63															
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55													55															
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48													48															
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43													43															
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38													38															
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34													34															
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31													31															
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28													28															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7740	7740	7740
5°	7695	7689	7695
10°	7644	7503	7433
15°	7566	7273	7125
20°	7464	6992	6741
25°	7352	6658	6283
30°	7208	6296	5797
35°	7050	5903	5291
40°	6892	5500	4792
45°	6724	5078	4296
50°	6546	4644	3802
55°	6381	4170	3306
60°	6156	3666	2905
65°	5851	3110	2700
70°	5494	2780	2528
75°	4966	2562	2382
80°	4315	2325	2223
85°	3374	2052	2052

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6724 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	4.4
10°-20°	281.3	12.1
20°-30°	397.4	17.1
30°-40°	437.4	18.8
40°-50°	408.0	17.6
50°-60°	325.7	14.0
60°-70°	219.2	9.4
70°-80°	116.8	5.0
80°-90°	32.5	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°	781.1	33.7
0°-40°	1218.5	52.5
0°-60°	1952.3	84.1
0°-90°	2320.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2320.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1084	1093	1084	1080	1084	103
15°	1034	1028	994	977	974	291
25°	942	914	854	816	806	434
35°	817	769	684	630	613	511
45°	673	609	508	446	430	519
55°	518	439	338	284	268	462
65°	350	273	186	165	161	347
75°	182	121	94	88	87	194
85°	42	28	25	26	25	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1094.9	1094.9	1094.9	1094.9	1094.9
2.5°	1089.2	1098.2	1090.9	1092.5	1094.1
5°	1084.3	1093.3	1083.5	1080.3	1084.3
7.5°	1076.2	1083.5	1067.2	1059.9	1063.1
10°	1064.8	1069.7	1045.2	1035.4	1035.4
12.5°	1050.9	1050.9	1021.6	1007.7	1007.7
15°	1033.8	1028.1	993.8	976.7	973.5
17.5°	1014.2	1003.6	962.9	940.9	936.8
20°	992.2	975.1	929.4	900.9	896.0
22.5°	967.8	945.7	892.8	857.7	852.0
25°	942.5	913.9	853.6	816.1	805.5
27.5°	913.9	879.7	813.7	771.3	758.2
30°	883.0	843.8	771.3	724.0	710.1
32.5°	851.2	807.1	728.1	677.5	662.0
35°	816.9	768.8	684.0	630.2	613.1
37.5°	782.7	730.5	640.8	584.6	566.6
40°	746.8	689.7	596.0	538.1	519.3
42.5°	710.9	649.8	552.0	493.3	473.7
45°	672.6	609.0	507.9	446.0	429.7
47.5°	635.9	567.4	464.7	404.4	386.5
50°	595.2	524.2	422.3	362.0	345.7
52.5°	557.7	481.8	379.9	323.7	306.6
55°	517.7	439.4	338.3	284.5	268.2
57.5°	476.1	397.1	298.4	247.9	232.4
60°	435.4	354.7	259.3	212.8	205.5
62.5°	393.8	314.7	222.6	186.7	181.8
65°	349.8	273.1	185.9	164.7	161.4
67.5°	308.2	233.2	156.5	144.3	141.0
70°	265.8	193.2	134.5	123.9	122.3
72.5°	224.2	154.9	113.3	106.0	104.4
75°	181.8	120.7	93.8	88.1	87.2
77.5°	142.7	90.5	74.2	71.7	70.1
80°	106.0	67.7	57.1	55.4	54.6
82.5°	72.6	46.5	40.8	40.8	39.1
85°	41.6	28.5	25.3	26.1	25.3
87.5°	15.5	12.2	11.4	12.2	12.2
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	18.40	19.94	18.76	20.25	20.57	14.78	16.32	15.15	16.64	16.95
	3H	20.18	21.57	20.56	21.90	22.26	16.26	17.64	16.63	17.97	18.33
	4H	20.84	22.14	21.24	22.48	22.86	16.85	18.15	17.25	18.49	18.87
	6H	21.31	22.51	21.73	22.88	23.27	17.31	18.51	17.72	18.88	19.27
	8H	21.47	22.61	21.89	23.00	23.40	17.47	18.61	17.90	19.00	19.40
	12H	21.56	22.66	21.99	23.04	23.47	17.58	18.68	18.01	19.06	19.49
4H	2H	18.53	19.83	18.93	20.18	20.56	15.46	16.76	15.86	17.11	17.48
	3H	20.50	21.58	20.91	21.98	22.38	17.13	18.22	17.55	18.61	19.02
	4H	21.25	22.22	21.68	22.64	23.08	17.84	18.81	18.27	19.23	19.67
	6H	21.84	22.69	22.30	23.13	23.59	18.42	19.27	18.88	19.71	20.17
	8H	22.05	22.84	22.51	23.29	23.75	18.63	19.42	19.09	19.87	20.33
	12H	22.20	22.91	22.68	23.38	23.86	18.79	19.50	19.27	19.98	20.45
8H	4H	21.31	22.10	21.77	22.55	23.02	18.20	19.00	18.67	19.44	19.91
	6H	21.97	22.63	22.47	23.12	23.60	18.90	19.56	19.40	20.05	20.53
	8H	22.23	22.81	22.74	23.32	23.81	19.19	19.78	19.70	20.29	20.77
	12H	22.43	22.96	22.94	23.45	24.01	19.43	19.95	19.94	20.44	21.01
12H	4H	21.31	22.01	21.79	22.49	22.96	18.25	18.96	18.73	19.44	19.91
	6H	21.97	22.56	22.48	23.07	23.55	18.98	19.57	19.49	20.07	20.56
	8H	22.26	22.78	22.77	23.27	23.84	19.32	19.84	19.83	20.33	20.90