

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: P1056613

Luminaire Tested: S125R3DR-H850D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056613
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H850D927-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

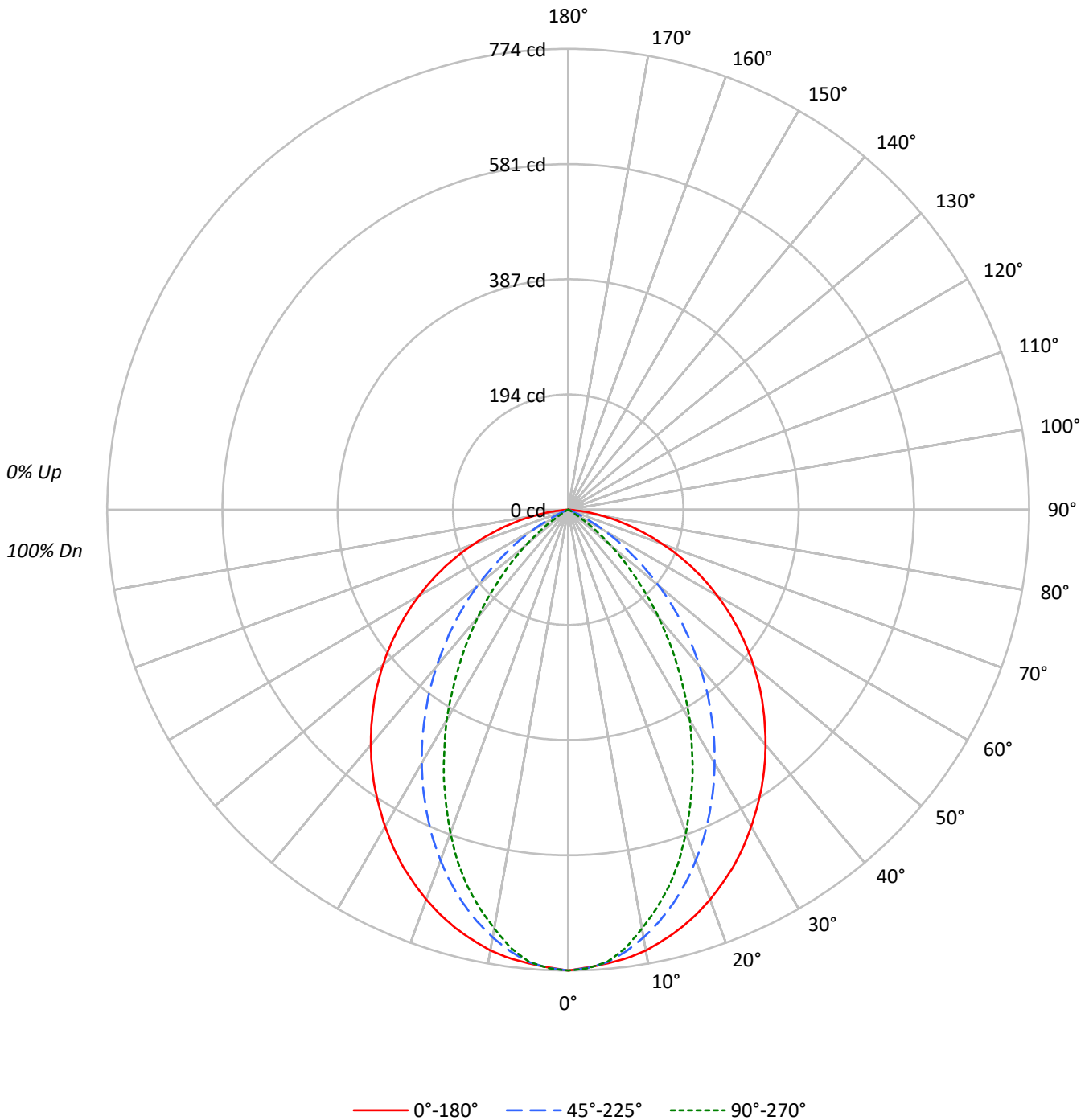
Lumens per Lamp: N/A
Luminaire Lumens: 1254.6 lumens
Efficiency: N/A
Efficacy: 52.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5472	5472	5472
5°	5427	5411	5406
10°	5397	5237	5127
15°	5328	5002	4789
20°	5241	4715	4345
25°	5140	4380	3853
30°	5016	4014	3331
35°	4892	3608	2754
40°	4757	3172	2181
45°	4617	2707	1580
50°	4463	2185	1021
55°	4293	1597	454
60°	4089	987	130
65°	3837	360	77
70°	3472	126	31
75°	3018	41	22
80°	2312	33	0
85°	1054	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4617 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	5.7
10°-20°	193.0	15.4
20°-30°	261.2	20.8
30°-40°	268.3	21.4
40°-50°	222.3	17.7
50°-60°	142.7	11.4
60°-70°	68.9	5.5
70°-80°	23.3	1.9
80°-90°	3.0	0.2
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°	526.1	41.9
0°-40°	794.4	63.3
0°-60°	1159.4	92.4
0°-90°	1254.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1254.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	765	771	762	758	762	73
15°	728	719	684	660	654	205
25°	659	627	562	511	494	303
35°	567	512	418	345	319	354
45°	462	386	271	187	158	356
55°	348	256	130	57	37	311
65°	229	127	22	6	5	227
75°	110	24	2	1	1	117
85°	13	0	0	0	0	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	774.0	774.0	774.0	774.0	774.0
2.5°	769.4	775.6	770.2	769.4	771.0
5°	764.8	771.0	762.5	757.9	761.8
7.5°	759.5	762.5	747.9	740.3	741.8
10°	751.8	751.0	729.5	716.5	714.2
12.5°	740.3	736.4	708.1	689.6	685.8
15°	728.0	718.8	683.5	659.7	654.4
17.5°	713.4	698.9	656.7	626.0	618.3
20°	696.6	676.6	626.7	589.2	577.6
22.5°	678.1	652.8	595.3	550.8	535.5
25°	659.0	626.7	561.5	510.9	494.0
27.5°	637.5	599.9	527.8	470.2	449.5
30°	614.5	571.5	491.7	428.8	408.1
32.5°	590.7	543.1	455.7	387.4	362.1
35°	566.9	512.4	418.1	345.2	319.1
37.5°	541.6	481.8	381.3	305.3	276.9
40°	515.5	450.3	343.7	263.9	236.3
42.5°	488.7	418.1	306.1	224.8	196.4
45°	461.8	385.9	270.8	187.2	158.0
47.5°	434.2	352.9	234.0	150.4	125.0
50°	405.8	320.7	198.7	117.4	92.8
52.5°	377.4	287.7	162.6	85.2	62.9
55°	348.3	255.5	129.6	56.8	36.8
57.5°	319.1	222.5	99.0	31.5	13.8
60°	289.2	191.0	69.8	10.7	9.2
62.5°	260.1	157.3	43.7	8.4	6.9
65°	229.4	126.6	21.5	6.1	4.6
67.5°	199.5	97.4	9.2	3.8	2.3
70°	168.0	70.6	6.1	2.3	1.5
72.5°	138.8	45.3	3.8	1.5	0.8
75°	110.5	23.8	1.5	0.8	0.8
77.5°	82.8	10.0	0.8	0.8	0.8
80°	56.8	4.6	0.8	0.8	0.0
82.5°	33.8	1.5	0.8	0.8	0.0
85°	13.0	0.0	0.0	0.0	0.0
87.5°	0.8	0.0	0.0	0.0	0.0
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	16.97	18.36	17.34	18.67	18.99	1.85	3.23	2.21	3.54	3.86
	3H	18.52	19.75	18.90	20.08	20.45	1.77	3.00	2.15	3.32	3.69
	4H	19.05	20.19	19.45	20.54	20.92	1.70	2.85	2.10	3.20	3.58
	6H	19.39	20.44	19.80	20.81	21.20	1.63	2.68	2.05	3.05	3.45
	8H	19.47	20.46	19.90	20.85	21.26	1.59	2.59	2.02	2.98	3.38
	12H	19.48	20.44	19.92	20.82	21.25	1.55	2.50	1.98	2.89	3.32
4H	2H	16.78	17.92	17.18	18.27	18.65	2.71	3.85	3.11	4.20	4.59
	3H	18.39	19.33	18.80	19.73	20.13	2.66	3.59	3.07	3.99	4.40
	4H	18.91	19.75	19.35	20.17	20.61	2.58	3.41	3.01	3.83	4.27
	6H	19.29	20.01	19.75	20.45	20.92	2.52	3.23	2.98	3.68	4.15
	8H	19.39	20.06	19.86	20.50	20.97	2.47	3.14	2.93	3.58	4.05
	12H	19.42	20.02	19.91	20.50	20.97	2.42	3.02	2.91	3.50	3.97
8H	4H	18.79	19.46	19.25	19.90	20.37	3.60	4.27	4.07	4.72	5.19
	6H	19.14	19.69	19.64	20.19	20.67	3.52	4.07	4.02	4.56	5.04
	8H	19.24	19.73	19.76	20.24	20.73	3.47	3.96	3.99	4.47	4.96
	12H	19.28	19.71	19.79	20.21	20.78	3.43	3.86	3.94	4.36	4.93
12H	4H	18.74	19.34	19.23	19.82	20.29	3.68	4.27	4.16	4.75	5.23
	6H	19.08	19.57	19.60	20.09	20.58	3.58	4.08	4.10	4.59	5.08
	8H	19.19	19.63	19.71	20.12	20.69	3.55	3.99	4.06	4.48	5.05