

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056616

Luminaire Tested: S125R3DR-H850D930-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056616
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-H850D930-X4F0-XX-UDD-FLL-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

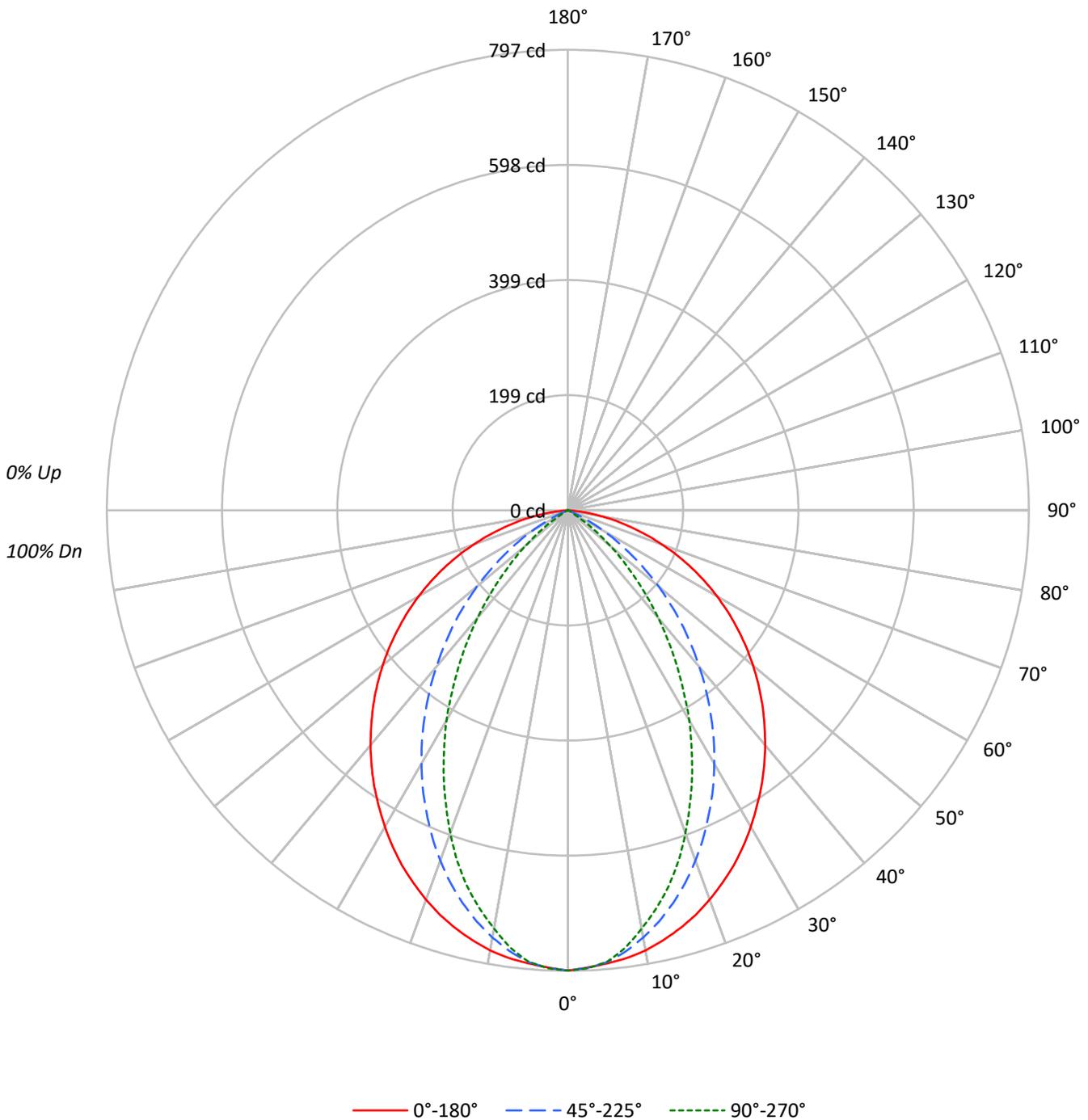
Lumens per Lamp: N/A
Luminaire Lumens: 1291.2 lumens
Efficiency: N/A
Efficacy: 54.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5631	5631	5631
5°	5586	5569	5564
10°	5554	5390	5276
15°	5483	5149	4929
20°	5393	4852	4472
25°	5290	4508	3966
30°	5162	4131	3428
35°	5035	3714	2834
40°	4897	3264	2244
45°	4752	2786	1626
50°	4594	2249	1050
55°	4417	1644	467
60°	4208	1015	134
65°	3949	370	79
70°	3574	130	33
75°	3106	44	22
80°	2378	33	0
85°	1087	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4752 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	5.7
10°-20°	198.7	15.4
20°-30°	268.8	20.8
30°-40°	276.1	21.4
40°-50°	228.7	17.7
50°-60°	146.9	11.4
60°-70°	70.9	5.5
70°-80°	24.0	1.9
80°-90°	3.1	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°	541.4	41.9
0°-40°	817.6	63.3
0°-60°	1193.2	92.4
0°-90°	1291.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1291.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	787	794	785	780	784	75
15°	749	740	704	679	674	211
25°	678	645	578	526	508	312
35°	583	527	430	355	328	365
45°	475	397	279	193	163	367
55°	358	263	133	58	38	320
65°	236	130	22	6	5	234
75°	114	24	2	1	1	121
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°	796.6	796.6	796.6	796.6	796.6
2.5°	791.9	798.2	792.7	791.9	793.5
5°	787.1	793.5	784.8	780.0	784.0
7.5°	781.6	784.8	769.8	761.9	763.5
10°	773.7	772.9	750.8	737.4	735.0
12.5°	761.9	757.9	728.7	709.8	705.8
15°	749.2	739.8	703.5	679.0	673.5
17.5°	734.2	719.2	675.8	644.2	636.3
20°	716.9	696.3	645.0	606.3	594.5
22.5°	697.9	671.9	612.7	566.9	551.1
25°	678.2	645.0	577.9	525.8	508.4
27.5°	656.1	617.4	543.2	484.0	462.7
30°	632.4	588.2	506.1	441.3	420.0
32.5°	607.9	559.0	469.0	398.7	372.6
35°	583.4	527.4	430.3	355.3	328.4
37.5°	557.4	495.8	392.4	314.2	285.0
40°	530.6	463.4	353.7	271.6	243.2
42.5°	502.9	430.3	315.0	231.3	202.1
45°	475.3	397.1	278.7	192.6	162.6
47.5°	446.9	363.2	240.8	154.7	128.7
50°	417.7	330.0	204.5	120.8	95.5
52.5°	388.4	296.1	167.4	87.6	64.7
55°	358.4	262.9	133.4	58.4	37.9
57.5°	328.4	229.0	101.8	32.4	14.2
60°	297.6	196.6	71.8	11.1	9.5
62.5°	267.6	161.9	45.0	8.7	7.1
65°	236.1	130.3	22.1	6.3	4.7
67.5°	205.3	100.3	9.5	3.9	2.4
70°	172.9	72.6	6.3	2.4	1.6
72.5°	142.9	46.6	3.9	1.6	0.8
75°	113.7	24.5	1.6	0.8	0.8
77.5°	85.3	10.3	0.8	0.8	0.8
80°	58.4	4.7	0.8	0.8	0.0
82.5°	34.7	1.6	0.8	0.8	0.0
85°	13.4	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	17.07	18.46	17.44	18.77	19.09	1.94	3.33	2.31	3.64	3.96
	3H	18.62	19.85	19.00	20.18	20.55	1.87	3.09	2.25	3.42	3.79
	4H	19.15	20.29	19.55	20.64	21.02	1.80	2.94	2.20	3.30	3.68
	6H	19.49	20.54	19.90	20.91	21.30	1.73	2.78	2.15	3.15	3.55
	8H	19.57	20.56	20.00	20.95	21.36	1.69	2.69	2.12	3.08	3.48
	12H	19.58	20.54	20.02	20.92	21.35	1.65	2.60	2.08	2.99	3.42
4H	2H	16.88	18.02	17.28	18.37	18.75	2.81	3.95	3.21	4.30	4.68
	3H	18.49	19.43	18.90	19.83	20.23	2.76	3.69	3.17	4.09	4.50
	4H	19.01	19.85	19.45	20.27	20.71	2.68	3.51	3.11	3.93	4.37
	6H	19.39	20.11	19.85	20.55	21.02	2.61	3.33	3.07	3.78	4.24
	8H	19.49	20.16	19.96	20.60	21.07	2.56	3.23	3.03	3.68	4.15
	12H	19.52	20.12	20.01	20.60	21.07	2.52	3.11	3.01	3.60	4.07
8H	4H	18.89	19.56	19.35	20.00	20.47	3.70	4.37	4.17	4.82	5.29
	6H	19.24	19.79	19.74	20.29	20.77	3.62	4.16	4.12	4.66	5.14
	8H	19.34	19.83	19.86	20.34	20.83	3.56	4.06	4.08	4.57	5.06
	12H	19.38	19.81	19.89	20.31	20.88	3.52	3.96	4.04	4.45	5.02
12H	4H	18.84	19.44	19.33	19.92	20.39	3.78	4.37	4.26	4.85	5.33
	6H	19.18	19.67	19.70	20.19	20.68	3.68	4.17	4.20	4.69	5.18
	8H	19.29	19.73	19.81	20.22	20.79	3.65	4.08	4.16	4.58	5.15