

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: P1056589

Luminaire Tested: S125R3DR-H610D930-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056589
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-H610D930-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

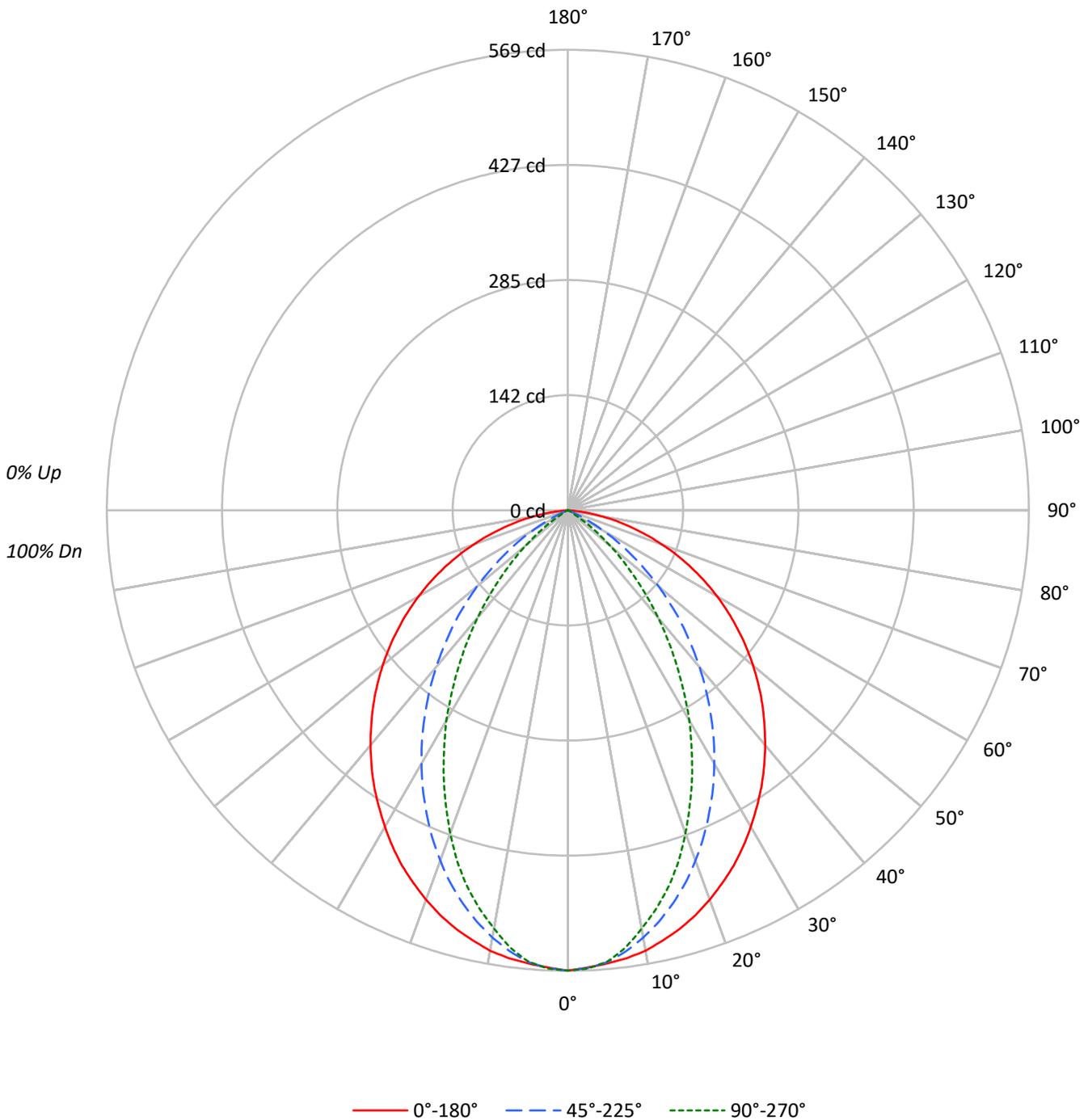
Lumens per Lamp: N/A
Luminaire Lumens: 922.0 lumens
Efficiency: N/A
Efficacy: 53.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
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	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°	4021	4021	4021
5°	3988	3977	3973
10°	3966	3848	3767
15°	3916	3676	3520
20°	3851	3465	3194
25°	3778	3219	2831
30°	3686	2950	2448
35°	3595	2651	2024
40°	3496	2331	1602
45°	3393	1990	1161
50°	3280	1606	750
55°	3154	1175	334
60°	3004	725	96
65°	2820	264	57
70°	2553	93	23
75°	2218	30	16
80°	1698	24	0
85°	779	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3393 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.8	5.7
10°-20°	141.9	15.4
20°-30°	191.9	20.8
30°-40°	197.2	21.4
40°-50°	163.3	17.7
50°-60°	104.9	11.4
60°-70°	50.7	5.5
70°-80°	17.1	1.9
80°-90°	2.2	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°	386.6	41.9
0°-40°	583.8	63.3
0°-60°	852.0	92.4
0°-90°	922.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	922.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	569	569	569	569	569	
5°	562	567	560	557	560	53
15°	535	528	502	485	481	151
25°	484	461	413	376	363	223
35°	417	377	307	254	234	260
45°	339	284	199	138	116	262
55°	256	188	95	42	27	229
65°	169	93	16	4	3	167
75°	81	18	1	1	1	86
85°	10	0	0	0	0	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	568.8	568.8	568.8	568.8	568.8
2.5°	565.4	569.9	566.0	565.4	566.6
5°	562.0	566.6	560.4	557.0	559.8
7.5°	558.1	560.4	549.6	544.0	545.1
10°	552.5	551.9	536.1	526.5	524.8
12.5°	544.0	541.2	520.3	506.8	504.0
15°	535.0	528.2	502.3	484.8	480.9
17.5°	524.3	513.6	482.6	460.0	454.4
20°	511.9	497.2	460.6	433.0	424.5
22.5°	498.3	479.7	437.5	404.8	393.5
25°	484.3	460.6	412.7	375.5	363.0
27.5°	468.5	440.8	387.9	345.6	330.4
30°	451.6	420.0	361.4	315.1	299.9
32.5°	434.1	399.1	334.9	284.7	266.1
35°	416.6	376.6	307.2	253.7	234.5
37.5°	398.0	354.0	280.2	224.4	203.5
40°	378.8	330.9	252.6	193.9	173.6
42.5°	359.1	307.2	224.9	165.2	144.3
45°	339.4	283.6	199.0	137.6	116.1
47.5°	319.1	259.3	171.9	110.5	91.9
50°	298.2	235.6	146.0	86.3	68.2
52.5°	277.4	211.4	119.5	62.6	46.2
55°	255.9	187.7	95.3	41.7	27.1
57.5°	234.5	163.5	72.7	23.1	10.1
60°	212.5	140.4	51.3	7.9	6.8
62.5°	191.1	115.6	32.1	6.2	5.1
65°	168.6	93.0	15.8	4.5	3.4
67.5°	146.6	71.6	6.8	2.8	1.7
70°	123.5	51.9	4.5	1.7	1.1
72.5°	102.0	33.3	2.8	1.1	0.6
75°	81.2	17.5	1.1	0.6	0.6
77.5°	60.9	7.3	0.6	0.6	0.6
80°	41.7	3.4	0.6	0.6	0.0
82.5°	24.8	1.1	0.6	0.6	0.0
85°	9.6	0.0	0.0	0.0	0.0
87.5°	0.6	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	15.90	17.29	16.27	17.60	17.92	0.76	2.15	1.13	2.46	2.77
	3H	17.45	18.68	17.83	19.01	19.38	0.68	1.91	1.06	2.24	2.60
	4H	17.98	19.12	18.38	19.47	19.85	0.62	1.76	1.02	2.11	2.49
	6H	18.32	19.37	18.73	19.74	20.13	0.55	1.60	0.96	1.97	2.36
	8H	18.40	19.39	18.83	19.78	20.19	0.51	1.51	0.94	1.90	2.30
	12H	18.41	19.37	18.85	19.75	20.18	0.47	1.42	0.90	1.80	2.23
4H	2H	15.71	16.85	16.11	17.20	17.58	1.63	2.77	2.03	3.12	3.51
	3H	17.32	18.26	17.73	18.66	19.06	1.58	2.51	1.99	2.91	3.32
	4H	17.84	18.68	18.28	19.10	19.54	1.50	2.33	1.93	2.75	3.19
	6H	18.22	18.94	18.68	19.38	19.85	1.44	2.16	1.90	2.60	3.07
	8H	18.32	18.99	18.79	19.43	19.90	1.39	2.06	1.85	2.50	2.97
	12H	18.35	18.95	18.84	19.43	19.90	1.34	1.94	1.83	2.42	2.89
8H	4H	17.72	18.39	18.18	18.83	19.30	2.52	3.20	2.99	3.64	4.11
	6H	18.07	18.62	18.57	19.12	19.60	2.44	2.99	2.94	3.49	3.97
	8H	18.17	18.66	18.69	19.17	19.66	2.39	2.88	2.91	3.40	3.89
	12H	18.21	18.64	18.72	19.14	19.71	2.35	2.79	2.86	3.28	3.85
12H	4H	17.67	18.27	18.16	18.75	19.22	2.60	3.20	3.09	3.68	4.15
	6H	18.01	18.50	18.53	19.02	19.51	2.51	3.00	3.03	3.51	4.01
	8H	18.12	18.56	18.64	19.05	19.62	2.48	2.91	2.99	3.41	3.97