

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: P1056582

Luminaire Tested: S125R3DR-H610D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056582
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-H610D840-X4F0-XX-UDD-FLL-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

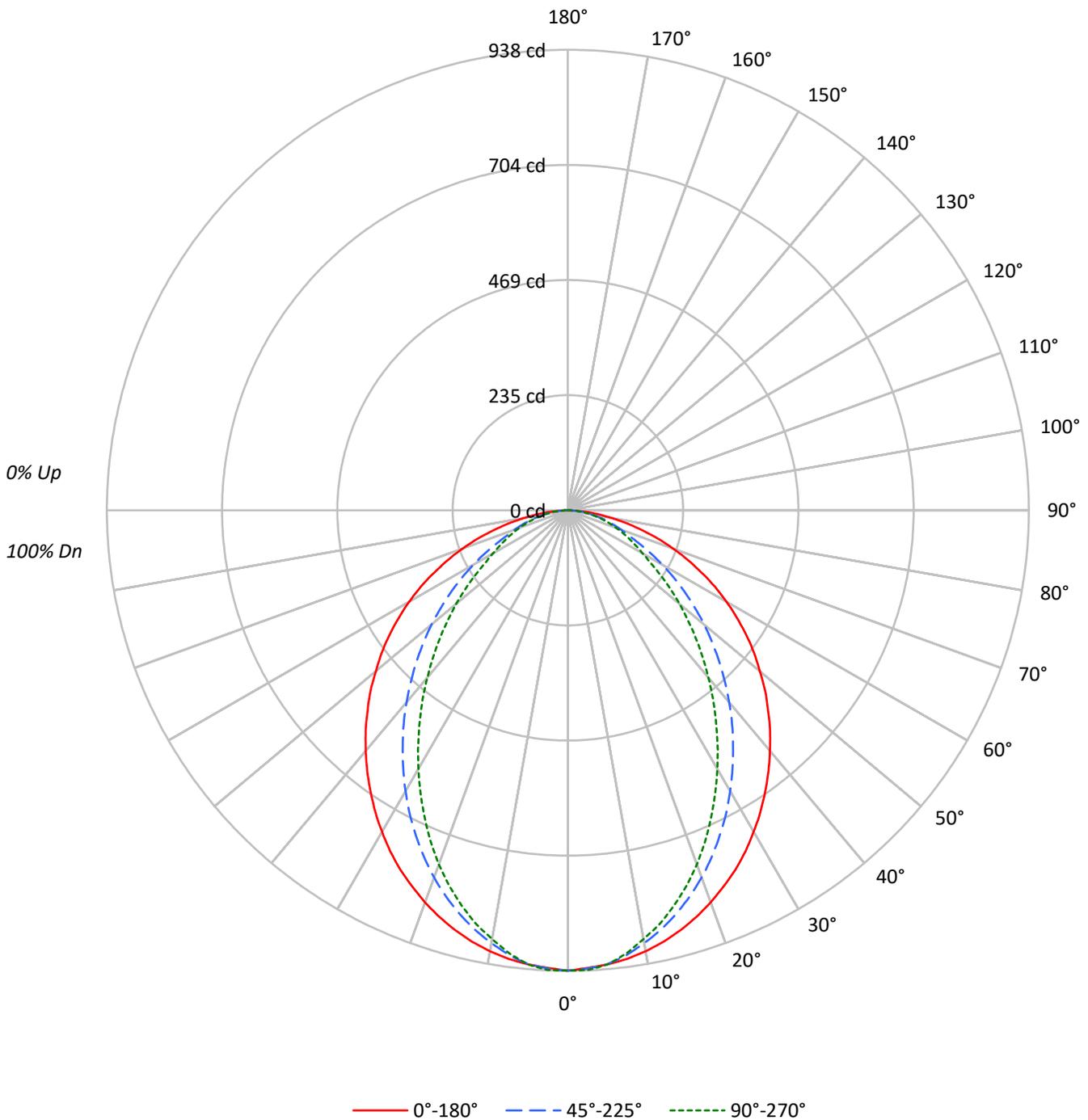
Lumens per Lamp: N/A
Luminaire Lumens: 1987.6 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6630	6630	6630
5°	6590	6585	6590
10°	6546	6426	6366
15°	6480	6230	6102
20°	6393	5988	5773
25°	6296	5703	5381
30°	6173	5392	4965
35°	6038	5056	4532
40°	5902	4710	4105
45°	5760	4349	3679
50°	5606	3978	3256
55°	5465	3572	2831
60°	5272	3140	2488
65°	5012	2663	2313
70°	4704	2381	2164
75°	4253	2193	2040
80°	3697	1991	1905
85°	2888	1752	1752

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5760 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.7	4.4
10°-20°	240.9	12.1
20°-30°	340.3	17.1
30°-40°	374.7	18.8
40°-50°	349.5	17.6
50°-60°	279.0	14.0
60°-70°	187.7	9.4
70°-80°	100.0	5.0
80°-90°	27.8	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°	669.0	33.7
0°-40°	1043.6	52.5
0°-60°	1672.1	84.1
0°-90°	1987.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1987.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	929	936	928	925	929	88
15°	885	880	851	836	834	250
25°	807	783	731	699	690	372
35°	700	658	586	540	525	438
45°	576	522	435	382	368	445
55°	443	376	290	244	230	396
65°	300	234	159	141	138	297
75°	156	103	80	75	75	166
85°	36	24	22	22	22	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	937.8	937.8	937.8	937.8	937.8
2.5°	932.9	940.6	934.3	935.7	937.1
5°	928.7	936.4	928.0	925.2	928.7
7.5°	921.7	928.0	914.0	907.8	910.5
10°	911.9	916.1	895.2	886.8	886.8
12.5°	900.1	900.1	874.9	863.1	863.1
15°	885.4	880.5	851.2	836.5	833.7
17.5°	868.7	859.6	824.7	805.8	802.3
20°	849.8	835.1	796.0	771.6	767.4
22.5°	828.8	810.0	764.6	734.6	729.7
25°	807.2	782.8	731.1	699.0	689.9
27.5°	782.8	753.4	696.9	660.6	649.4
30°	756.2	722.7	660.6	620.1	608.2
32.5°	729.0	691.3	623.6	580.3	567.0
35°	699.7	658.5	585.9	539.8	525.1
37.5°	670.3	625.7	548.8	500.7	485.3
40°	639.6	590.7	510.4	460.9	444.8
42.5°	608.9	556.5	472.7	422.5	405.7
45°	576.1	521.6	435.0	382.0	368.0
47.5°	544.7	486.0	398.0	346.3	331.0
50°	509.7	449.0	361.7	310.0	296.1
52.5°	477.6	412.7	325.4	277.2	262.6
55°	443.4	376.4	289.8	243.7	229.7
57.5°	407.8	340.1	255.6	212.3	199.0
60°	372.9	303.7	222.1	182.2	176.0
62.5°	337.3	269.5	190.6	159.9	155.7
65°	299.6	233.9	159.2	141.1	138.3
67.5°	263.9	199.7	134.1	123.6	120.8
70°	227.6	165.5	115.2	106.1	104.7
72.5°	192.0	132.7	97.1	90.8	89.4
75°	155.7	103.3	80.3	75.4	74.7
77.5°	122.2	77.5	63.5	61.4	60.1
80°	90.8	58.0	48.9	47.5	46.8
82.5°	62.1	39.8	34.9	34.9	33.5
85°	35.6	24.4	21.6	22.3	21.6
87.5°	13.3	10.5	9.8	10.5	10.5
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	17.86	19.40	18.23	19.71	20.03	14.24	15.78	14.61	16.10	16.41
	3H	19.65	21.03	20.02	21.36	21.72	15.72	17.10	16.10	17.43	17.79
	4H	20.30	21.60	20.70	21.95	22.32	16.31	17.61	16.71	17.96	18.33
	6H	20.78	21.98	21.19	22.34	22.73	16.77	17.97	17.18	18.34	18.73
	8H	20.93	22.07	21.36	22.46	22.86	16.93	18.08	17.36	18.47	18.87
	12H	21.02	22.12	21.45	22.50	22.93	17.05	18.14	17.48	18.52	18.95
4H	2H	18.00	19.29	18.39	19.64	20.02	14.92	16.22	15.32	16.57	16.94
	3H	19.97	21.05	20.38	21.45	21.85	16.60	17.68	17.01	18.08	18.48
	4H	20.71	21.68	21.14	22.10	22.54	17.30	18.27	17.73	18.69	19.13
	6H	21.30	22.15	21.76	22.59	23.05	17.89	18.73	18.34	19.18	19.63
	8H	21.51	22.30	21.97	22.75	23.21	18.09	18.89	18.56	19.33	19.80
	12H	21.66	22.37	22.14	22.84	23.32	18.25	18.96	18.74	19.44	19.91
8H	4H	20.77	21.57	21.24	22.01	22.48	17.66	18.46	18.13	18.90	19.37
	6H	21.43	22.09	21.93	22.58	23.06	18.37	19.02	18.86	19.51	19.99
	8H	21.69	22.28	22.20	22.78	23.27	18.65	19.24	19.16	19.75	20.24
	12H	21.89	22.42	22.40	22.91	23.47	18.89	19.41	19.40	19.90	20.47
12H	4H	20.77	21.48	21.25	21.95	22.42	17.71	18.42	18.19	18.90	19.37
	6H	21.43	22.02	21.94	22.53	23.01	18.44	19.03	18.95	19.54	20.02
	8H	21.72	22.24	22.23	22.73	23.30	18.78	19.30	19.29	19.79	20.36