

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: P1056556

Luminaire Tested: S125R3DR-H375D850-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056556
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-H375D850-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

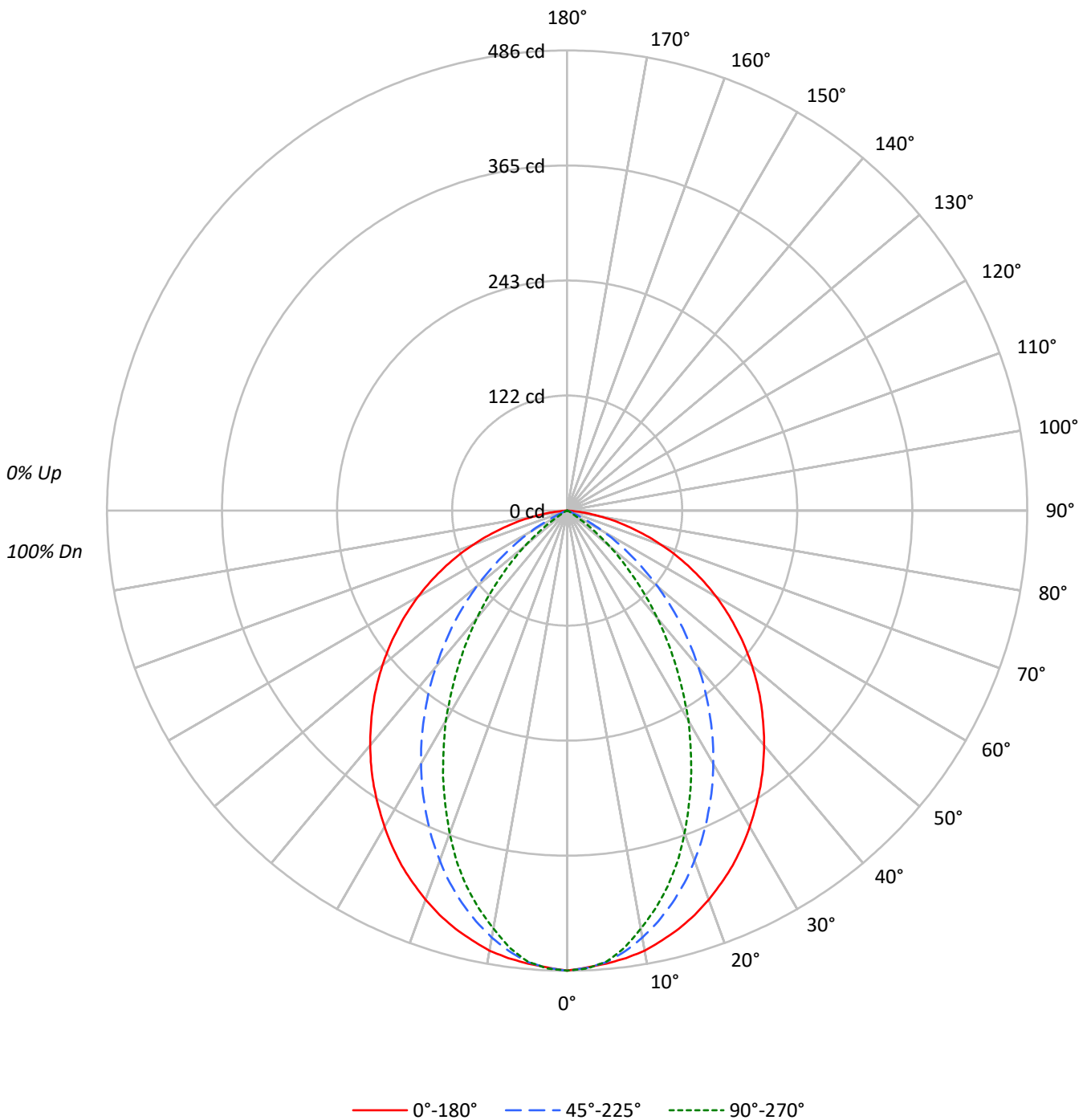
Lumens per Lamp: N/A
Luminaire Lumens: 787.5 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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°	3435	3435	3435
5°	3407	3396	3393
10°	3387	3287	3218
15°	3345	3140	3006
20°	3289	2960	2728
25°	3226	2750	2419
30°	3148	2520	2091
35°	3071	2265	1729
40°	2986	1991	1369
45°	2898	1700	992
50°	2801	1371	641
55°	2694	1003	285
60°	2566	619	82
65°	2409	226	49
70°	2181	81	21
75°	1893	27	14
80°	1449	20	0
85°	665	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2898 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	5.7
10°-20°	121.2	15.4
20°-30°	163.9	20.8
30°-40°	168.4	21.4
40°-50°	139.5	17.7
50°-60°	89.6	11.4
60°-70°	43.3	5.5
70°-80°	14.6	1.9
80°-90°	1.9	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°	330.2	41.9
0°-40°	498.6	63.3
0°-60°	727.7	92.4
0°-90°	787.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	787.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	486	486	486	486	486	
5°	480	484	479	476	478	46
15°	457	451	429	414	411	129
25°	414	393	352	321	310	190
35°	356	322	262	217	200	222
45°	290	242	170	118	99	224
55°	219	160	81	36	23	195
65°	144	80	14	4	3	142
75°	69	15	1	0	0	74
85°	8	0	0	0	0	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	485.9	485.9	485.9	485.9	485.9
2.5°	483.0	486.8	483.4	483.0	483.9
5°	480.1	483.9	478.6	475.7	478.1
7.5°	476.7	478.6	469.5	464.7	465.6
10°	471.9	471.4	457.9	449.7	448.3
12.5°	464.7	462.3	444.4	432.9	430.5
15°	457.0	451.2	429.0	414.1	410.7
17.5°	447.8	438.7	412.2	392.9	388.1
20°	437.2	424.7	393.4	369.8	362.6
22.5°	425.7	409.8	373.7	345.7	336.1
25°	413.6	393.4	352.5	320.7	310.1
27.5°	400.1	376.5	331.3	295.2	282.2
30°	385.7	358.7	308.7	269.2	256.2
32.5°	370.8	340.9	286.0	243.2	227.3
35°	355.8	321.7	262.4	216.7	200.3
37.5°	340.0	302.4	239.3	191.6	173.8
40°	323.6	282.7	215.7	165.6	148.3
42.5°	306.7	262.4	192.1	141.1	123.3
45°	289.9	242.2	170.0	117.5	99.2
47.5°	272.5	221.5	146.9	94.4	78.5
50°	254.7	201.3	124.7	73.7	58.3
52.5°	236.9	180.6	102.1	53.4	39.5
55°	218.6	160.3	81.4	35.6	23.1
57.5°	200.3	139.6	62.1	19.7	8.7
60°	181.5	119.9	43.8	6.7	5.8
62.5°	163.2	98.7	27.4	5.3	4.3
65°	144.0	79.5	13.5	3.9	2.9
67.5°	125.2	61.2	5.8	2.4	1.4
70°	105.5	44.3	3.9	1.4	1.0
72.5°	87.2	28.4	2.4	1.0	0.5
75°	69.3	14.9	1.0	0.5	0.5
77.5°	52.0	6.3	0.5	0.5	0.5
80°	35.6	2.9	0.5	0.5	0.0
82.5°	21.2	1.0	0.5	0.5	0.0
85°	8.2	0.0	0.0	0.0	0.0
87.5°	0.5	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	15.35	16.74	15.72	17.05	17.37	0.21	1.59	0.57	1.91	2.22
	3H	16.90	18.13	17.28	18.46	18.83	0.13	1.36	0.51	1.69	2.05
	4H	17.43	18.57	17.83	18.92	19.30	0.06	1.21	0.47	1.56	1.94
	6H	17.77	18.82	18.18	19.19	19.58	0.00	1.05	0.41	1.42	1.81
	8H	17.85	18.85	18.28	19.24	19.64	0.00	0.95	0.38	1.34	1.74
	12H	17.87	18.82	18.30	19.20	19.63	0.00	0.87	0.35	1.25	1.68
4H	2H	15.16	16.30	15.56	16.65	17.03	1.08	2.22	1.48	2.57	2.95
	3H	16.77	17.71	17.18	18.11	18.51	1.03	1.96	1.44	2.36	2.76
	4H	17.29	18.13	17.73	18.55	18.99	0.95	1.78	1.38	2.20	2.64
	6H	17.67	18.39	18.13	18.83	19.30	0.88	1.60	1.35	2.05	2.51
	8H	17.77	18.44	18.24	18.89	19.36	0.83	1.50	1.30	1.95	2.42
	12H	17.80	18.40	18.29	18.88	19.35	0.79	1.38	1.28	1.87	2.34
8H	4H	17.17	17.84	17.63	18.28	18.75	1.97	2.64	2.44	3.09	3.56
	6H	17.52	18.07	18.02	18.57	19.05	1.89	2.44	2.39	2.94	3.42
	8H	17.62	18.11	18.14	18.62	19.12	1.84	2.33	2.36	2.85	3.34
	12H	17.66	18.10	18.17	18.59	19.16	1.80	2.23	2.31	2.73	3.30
12H	4H	17.12	17.72	17.61	18.20	18.67	2.05	2.65	2.54	3.13	3.60
	6H	17.46	17.96	17.98	18.47	18.96	1.96	2.45	2.48	2.96	3.45
	8H	17.58	18.01	18.09	18.51	19.08	1.92	2.36	2.44	2.85	3.42