

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: P1056433

Luminaire Tested: S125R3DR-S375D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056433  
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-S375D940-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

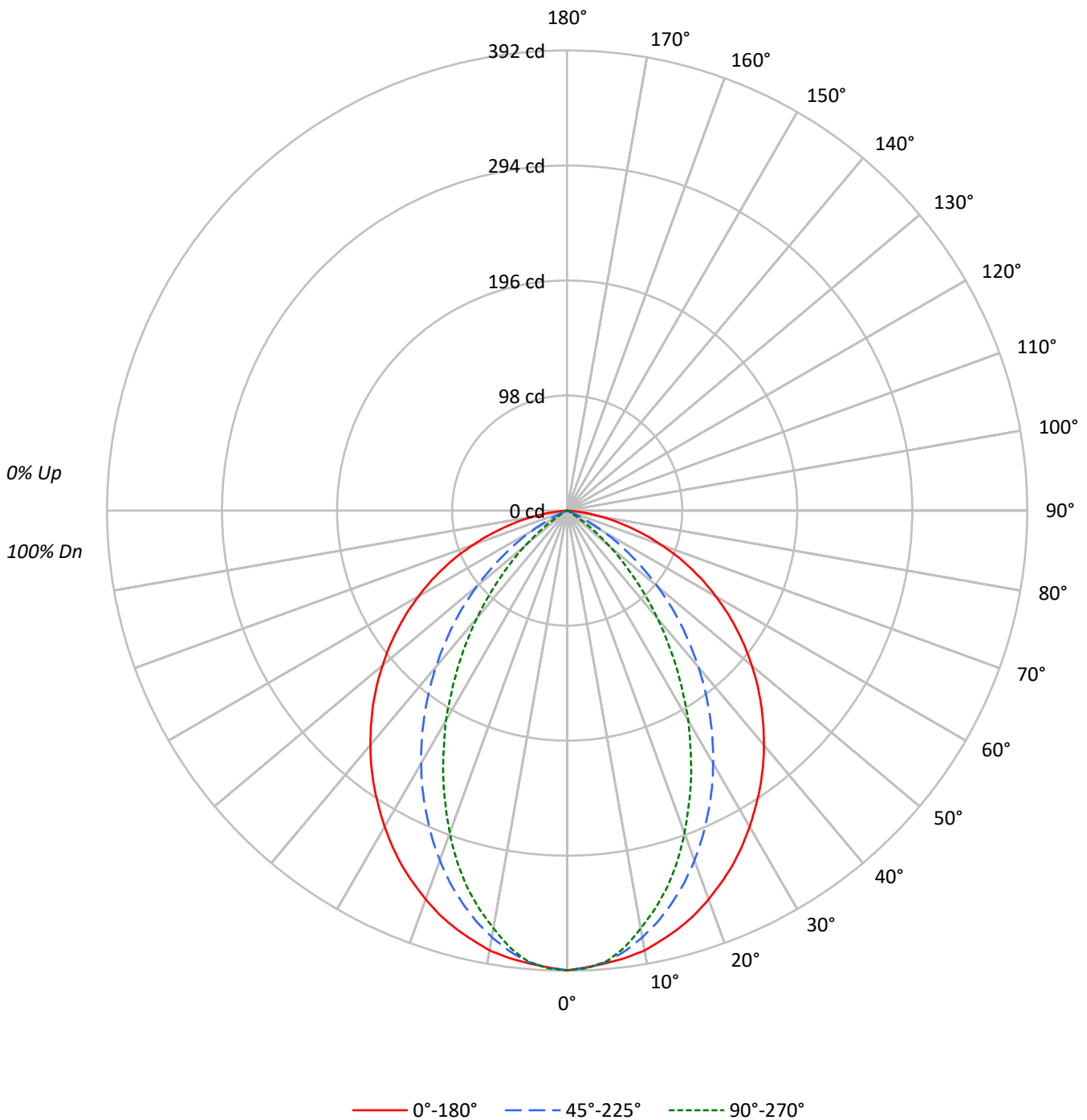
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 634.8 lumens  
Efficiency: N/A  
Efficacy: 50.4 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): 12.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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°	2768	2768	2768
5°	2746	2738	2735
10°	2731	2650	2594
15°	2695	2531	2423
20°	2651	2386	2199
25°	2601	2216	1950
30°	2538	2031	1686
35°	2475	1825	1394
40°	2407	1605	1103
45°	2336	1370	800
50°	2258	1105	517
55°	2172	809	229
60°	2068	499	66
65°	1940	182	38
70°	1757	64	17
75°	1527	22	11
80°	1168	16	0
85°	535	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2336 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.4	5.7
10°-20°	97.7	15.4
20°-30°	132.1	20.8
30°-40°	135.7	21.4
40°-50°	112.5	17.7
50°-60°	72.2	11.4
60°-70°	34.9	5.5
70°-80°	11.8	1.9
80°-90°	1.5	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°	266.2	41.9
0°-40°	401.9	63.3
0°-60°	586.6	92.4
0°-90°	634.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	634.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	392	392	392	392	392	
5°	387	390	386	384	385	37
15°	368	364	346	334	331	104
25°	333	317	284	258	250	153
35°	287	259	212	175	162	179
45°	234	195	137	95	80	180
55°	176	129	66	29	19	158
65°	116	64	11	3	2	115
75°	56	12	1	0	0	59
85°	7	0	0	0	0	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	391.6	391.6	391.6	391.6	391.6
2.5°	389.3	392.4	389.7	389.3	390.1
5°	387.0	390.1	385.8	383.5	385.4
7.5°	384.2	385.8	378.4	374.5	375.3
10°	380.4	380.0	369.1	362.5	361.3
12.5°	374.5	372.6	358.2	348.9	347.0
15°	368.3	363.7	345.8	333.8	331.1
17.5°	361.0	353.6	332.2	316.7	312.8
20°	352.4	342.3	317.1	298.1	292.3
22.5°	343.1	330.3	301.2	278.7	270.9
25°	333.4	317.1	284.1	258.5	250.0
27.5°	322.5	303.5	267.0	237.9	227.4
30°	310.9	289.2	248.8	217.0	206.5
32.5°	298.9	274.8	230.5	196.0	183.2
35°	286.8	259.3	211.5	174.7	161.5
37.5°	274.0	243.7	192.9	154.5	140.1
40°	260.8	227.8	173.9	133.5	119.5
42.5°	247.2	211.5	154.9	113.7	99.4
45°	233.7	195.2	137.0	94.7	80.0
47.5°	219.7	178.5	118.4	76.1	63.3
50°	205.3	162.2	100.5	59.4	47.0
52.5°	191.0	145.5	82.3	43.1	31.8
55°	176.2	129.2	65.6	28.7	18.6
57.5°	161.5	112.6	50.1	15.9	7.0
60°	146.3	96.6	35.3	5.4	4.7
62.5°	131.6	79.6	22.1	4.3	3.5
65°	116.0	64.0	10.9	3.1	2.3
67.5°	100.9	49.3	4.7	1.9	1.2
70°	85.0	35.7	3.1	1.2	0.8
72.5°	70.3	22.9	1.9	0.8	0.4
75°	55.9	12.0	0.8	0.4	0.4
77.5°	41.9	5.0	0.4	0.4	0.4
80°	28.7	2.3	0.4	0.4	0.0
82.5°	17.1	0.8	0.4	0.4	0.0
85°	6.6	0.0	0.0	0.0	0.0
87.5°	0.4	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	14.61	15.99	14.97	16.31	16.62	0.00	0.85	0.00	1.16	1.48
	3H	16.16	17.39	16.54	17.71	18.08	0.00	0.62	0.00	0.95	1.31
	4H	16.68	17.82	17.08	18.17	18.56	0.00	0.47	0.00	0.82	1.20
	6H	17.02	18.07	17.43	18.44	18.83	0.00	0.31	0.00	0.68	1.07
	8H	17.10	18.10	17.53	18.49	18.89	0.00	0.21	0.00	0.60	1.00
	12H	17.12	18.07	17.55	18.45	18.88	0.00	0.13	0.00	0.51	0.94
4H	2H	14.41	15.56	14.81	15.91	16.29	0.34	1.48	0.74	1.83	2.21
	3H	16.02	16.96	16.44	17.36	17.76	0.29	1.22	0.70	1.62	2.03
	4H	16.55	17.38	16.98	17.80	18.24	0.21	1.04	0.64	1.46	1.90
	6H	16.92	17.64	17.38	18.09	18.55	0.14	0.86	0.61	1.31	1.77
	8H	17.02	17.69	17.49	18.14	18.61	0.09	0.76	0.56	1.21	1.68
	12H	17.06	17.65	17.54	18.13	18.60	0.05	0.65	0.54	1.13	1.60
8H	4H	16.42	17.09	16.89	17.54	18.01	1.23	1.90	1.70	2.35	2.82
	6H	16.77	17.32	17.27	17.82	18.30	1.15	1.69	1.65	2.19	2.67
	8H	16.87	17.36	17.39	17.88	18.37	1.09	1.59	1.61	2.10	2.59
	12H	16.91	17.35	17.43	17.84	18.41	1.05	1.49	1.57	1.98	2.55
12H	4H	16.38	16.97	16.86	17.45	17.93	1.31	1.90	1.79	2.38	2.85
	6H	16.71	17.21	17.23	17.72	18.21	1.21	1.70	1.73	2.22	2.71
	8H	16.83	17.26	17.34	17.76	18.33	1.18	1.61	1.69	2.11	2.68