

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: P1059352

Luminaire Tested: S123RDR-S775D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059352  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S775D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

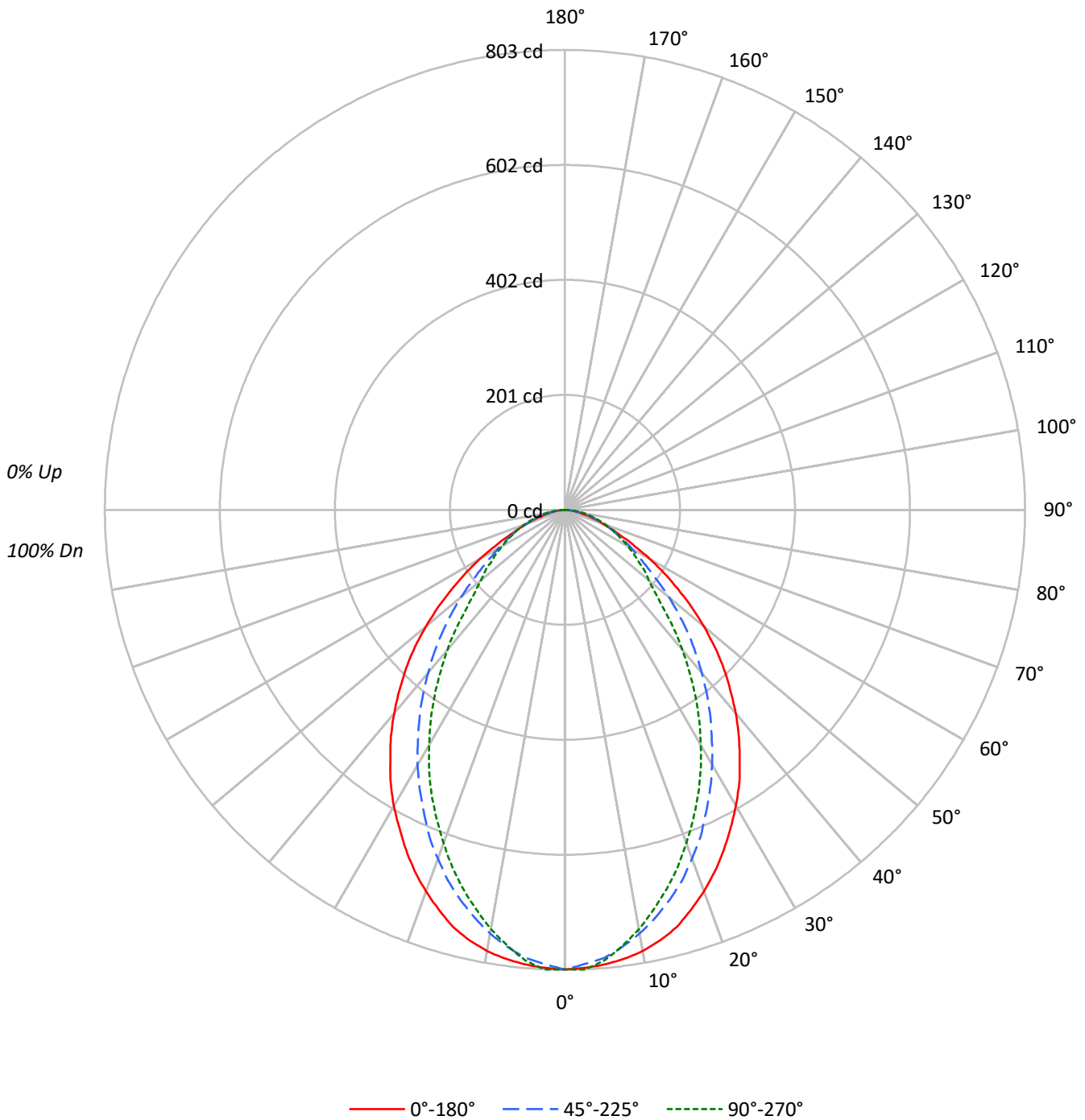
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1403.5 lumens  
Efficiency: N/A  
Efficacy: 54.4 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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	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	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9423	9423	9423
5°	9391	9254	9311
10°	9327	8958	8866
15°	9169	8570	8336
20°	8858	8099	7738
25°	8497	7547	7123
30°	8095	6971	6422
35°	7618	6346	5682
40°	7111	5692	4893
45°	6518	5028	4020
50°	5780	4317	3489
55°	4917	3613	3198
60°	4009	3149	2966
65°	3056	2787	2759
70°	2383	2482	2582
75°	1924	2232	2405
80°	1434	1826	2218
85°	781	1172	1954

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6518 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.5	5.3
10°-20°	200.4	14.3
20°-30°	272.4	19.4
30°-40°	282.4	20.1
40°-50°	238.2	17.0
50°-60°	169.1	12.0
60°-70°	103.3	7.4
70°-80°	51.4	3.7
80°-90°	11.7	0.8
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°	547.3	39.0
0°-40°	829.8	59.1
0°-60°	1237.1	88.1
0°-90°	1403.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1403.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	802	802	802	802	802	
5°	797	797	785	790	790	76
15°	754	740	705	692	686	212
25°	656	627	582	561	550	301
35°	531	491	443	412	396	332
45°	392	351	303	261	242	301
55°	240	215	176	161	156	216
65°	110	106	100	100	99	112
75°	42	45	49	51	53	46
85°	6	7	9	12	14	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	802.5	802.5	802.5	802.5	802.5
2.5°	800.5	801.5	793.8	802.5	803.4
5°	796.7	796.7	785.1	789.9	789.9
7.5°	790.9	788.9	769.7	769.7	767.7
10°	782.2	776.4	751.3	746.5	743.6
12.5°	769.7	760.0	729.1	720.5	714.7
15°	754.2	739.8	705.0	692.5	685.7
17.5°	732.0	717.6	679.0	661.6	653.9
20°	708.9	687.7	648.1	630.8	619.2
22.5°	683.8	656.8	618.2	597.0	584.5
25°	655.8	626.9	582.5	561.3	549.8
27.5°	625.9	594.1	548.8	524.7	513.1
30°	597.0	560.4	514.1	487.1	473.6
32.5°	566.2	524.7	477.4	449.4	435.9
35°	531.4	490.9	442.7	411.8	396.4
37.5°	498.6	457.2	407.0	374.2	356.9
40°	463.9	422.4	371.3	337.6	319.2
42.5°	427.3	387.7	337.6	298.0	280.7
45°	392.5	351.1	302.8	261.4	242.1
47.5°	354.9	316.4	269.1	226.7	213.2
50°	316.4	280.7	236.3	197.7	191.0
52.5°	278.7	248.8	203.5	178.4	175.5
55°	240.2	215.1	176.5	161.1	156.2
57.5°	204.5	186.1	151.4	143.7	141.8
60°	170.7	155.3	134.1	129.2	126.3
62.5°	137.9	129.2	116.7	114.8	112.8
65°	110.0	106.1	100.3	100.3	99.3
67.5°	86.8	86.8	85.8	87.8	86.8
70°	69.4	70.4	72.3	74.3	75.2
72.5°	55.0	57.9	59.8	62.7	63.7
75°	42.4	45.3	49.2	51.1	53.0
77.5°	30.9	33.8	37.6	40.5	42.4
80°	21.2	23.1	27.0	30.9	32.8
82.5°	13.5	14.5	17.4	21.2	23.1
85°	5.8	6.8	8.7	12.5	14.5
87.5°	0.0	0.0	1.0	3.9	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)