

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: P1059093

Luminaire Tested: S123RDR-S1165D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059093
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D830-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

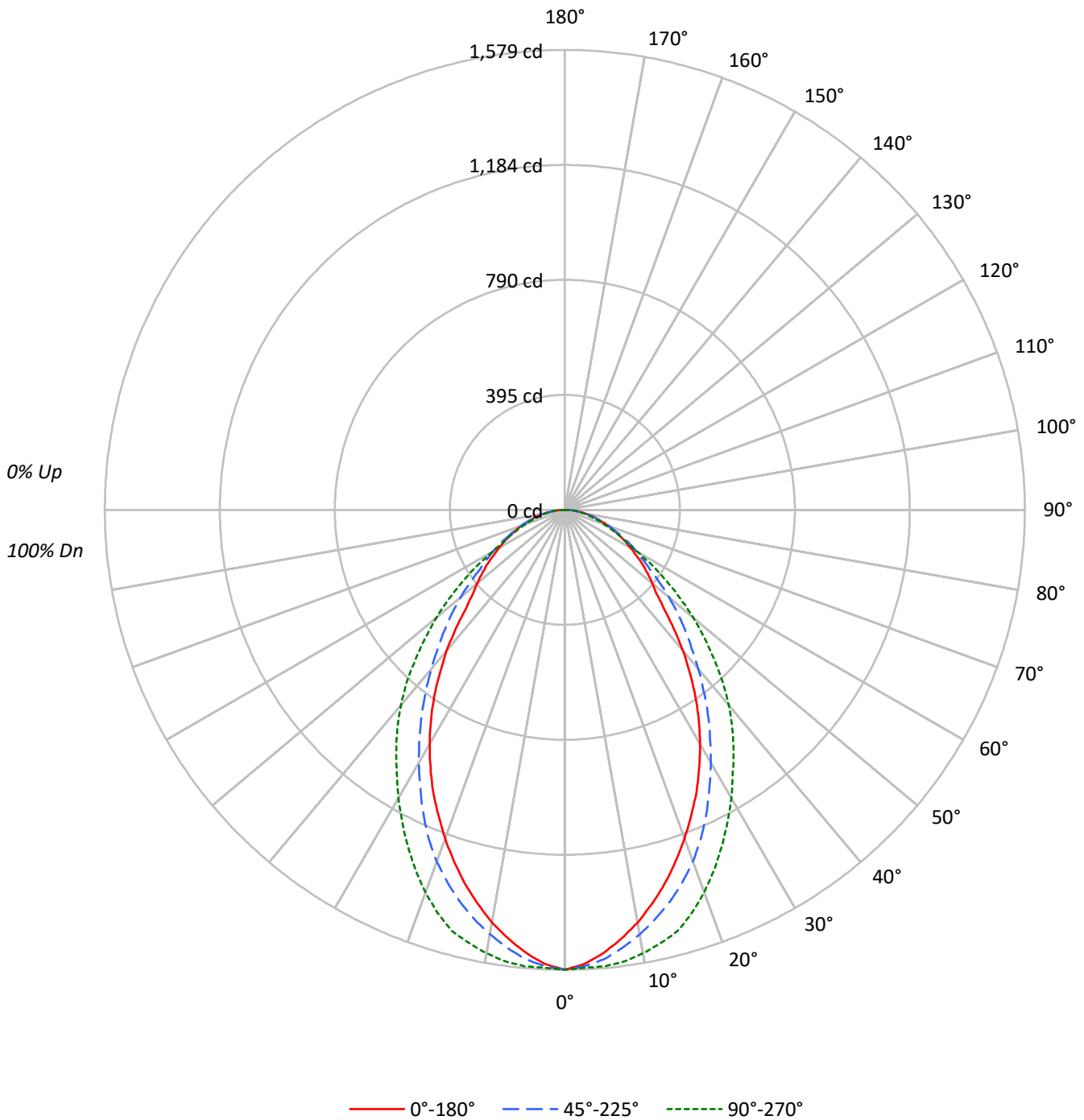
Lumens per Lamp: N/A
Luminaire Lumens: 2773.9 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18537	18537	18537
5°	17999	18255	18544
10°	17154	17641	18434
15°	16136	16928	18200
20°	15008	16060	17468
25°	13853	14891	16510
30°	12581	13594	15491
35°	11198	12269	14470
40°	9663	10932	13411
45°	7986	9678	12025
50°	7172	8537	10499
55°	6647	7286	8705
60°	6125	6637	6667
65°	5699	6002	5588
70°	5363	5455	4896
75°	5054	4868	4315
80°	4774	4409	4044
85°	4581	4945	4581

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12025 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.2	5.3
10°-20°	393.9	14.2
20°-30°	532.9	19.2
30°-40°	547.6	19.7
40°-50°	459.9	16.6
50°-60°	329.7	11.9
60°-70°	209.9	7.6
70°-80°	115.4	4.2
80°-90°	38.4	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°	1073.0	38.7
0°-40°	1620.6	58.4
0°-60°	2410.2	86.9
0°-90°	2773.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2773.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1579	1579	1579	1579	1579	
5°	1527	1554	1549	1560	1573	143
15°	1327	1364	1392	1452	1497	372
25°	1069	1110	1149	1212	1274	490
35°	781	823	856	932	1009	486
45°	481	523	583	667	724	380
55°	325	332	356	404	425	290
65°	205	217	216	204	201	204
75°	111	122	107	99	95	118
85°	34	35	37	38	34	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1578.6	1578.6	1578.6	1578.6	1578.6
2.5°	1561.0	1582.7	1567.8	1569.1	1573.2
5°	1527.0	1554.2	1548.7	1559.6	1573.2
7.5°	1484.9	1514.8	1516.1	1541.9	1563.7
10°	1438.7	1469.9	1479.5	1518.9	1546.0
12.5°	1384.4	1418.3	1438.7	1487.6	1522.9
15°	1327.3	1364.0	1392.5	1452.3	1497.1
17.5°	1264.8	1304.2	1340.9	1404.7	1450.9
20°	1201.0	1243.1	1285.2	1345.0	1397.9
22.5°	1134.4	1177.9	1221.3	1279.7	1338.2
25°	1069.2	1109.9	1149.3	1211.8	1274.3
27.5°	998.5	1040.6	1074.6	1143.9	1209.1
30°	927.9	970.0	1002.6	1074.6	1142.5
32.5°	854.5	898.0	927.9	1002.6	1073.3
35°	781.2	823.3	855.9	932.0	1009.4
37.5°	703.7	749.9	782.5	868.1	944.2
40°	630.4	673.8	713.2	802.9	874.9
42.5°	554.3	599.1	644.0	736.3	802.9
45°	480.9	523.0	582.8	667.0	724.1
47.5°	427.9	455.1	524.4	595.0	649.4
50°	392.6	403.5	467.3	529.8	574.7
52.5°	357.3	365.4	408.9	466.0	499.9
55°	324.7	331.5	355.9	403.5	425.2
57.5°	289.4	296.2	316.5	343.7	355.9
60°	260.8	266.3	282.6	286.7	283.9
62.5°	232.3	240.5	248.6	239.1	235.0
65°	205.1	217.4	216.0	203.8	201.1
67.5°	180.7	192.9	186.1	173.9	169.8
70°	156.2	168.5	158.9	146.7	142.6
72.5°	133.1	146.7	131.8	120.9	118.2
75°	111.4	122.3	107.3	99.2	95.1
77.5°	91.0	99.2	85.6	78.8	76.1
80°	70.6	76.1	65.2	61.1	59.8
82.5°	51.6	54.3	47.5	50.3	48.9
85°	34.0	35.3	36.7	38.0	34.0
87.5°	16.3	23.1	23.1	21.7	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)