

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: P1037350

Luminaire Tested: S123DS-B775DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037350
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DS-B775DB27-4F0-XX-W2A-D
Description: Define 3 Direct Surface with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

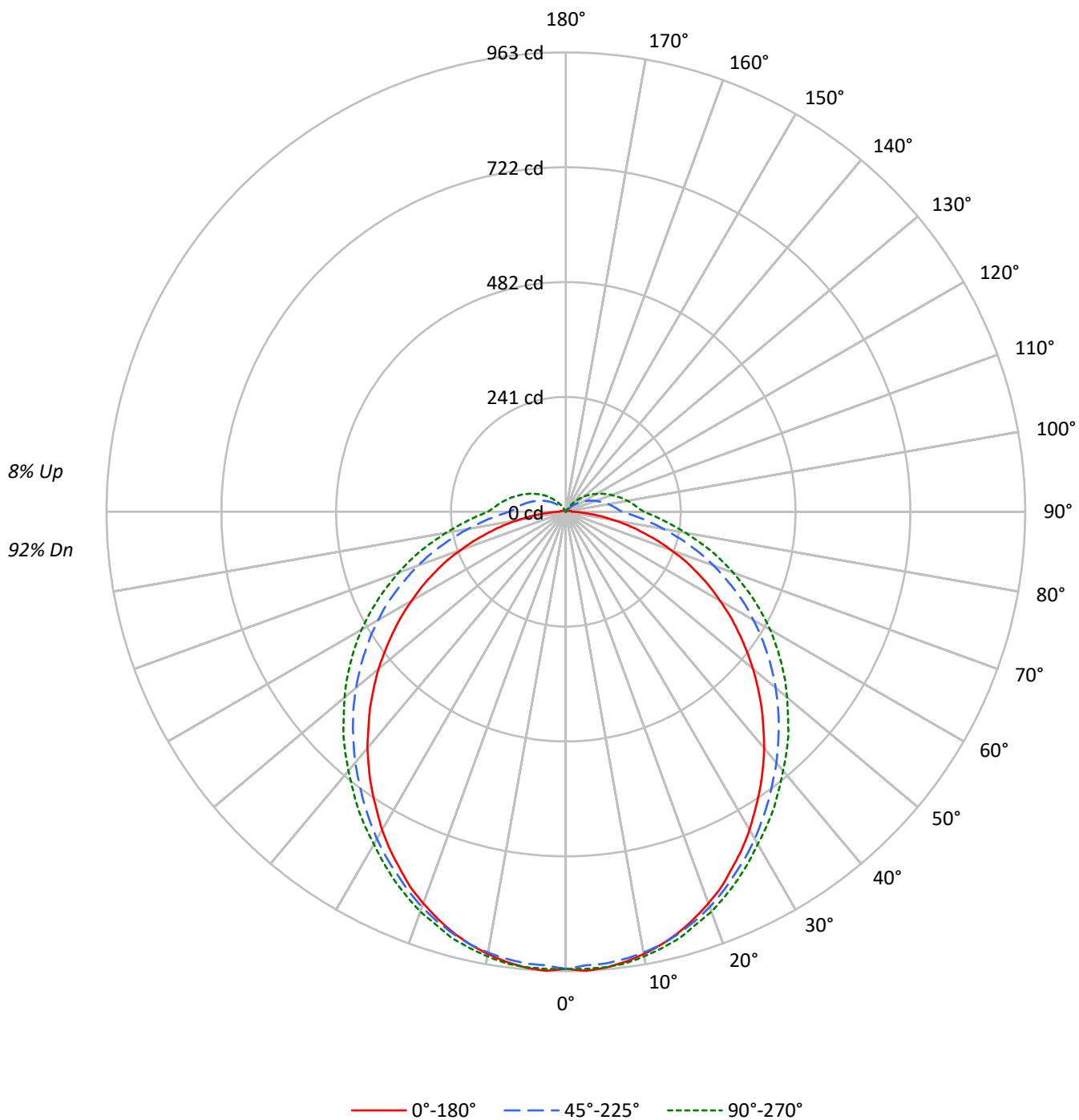
Lumens per Lamp: N/A
Luminaire Lumens: 3219.9 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.9
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	117	117	117	117	113	113	113	113	106	106	106		100	100	100		94
1	105	100	95	90	102	97	92	88	91	87	84		85	82	80		80
2	95	86	79	72	92	83	77	71	79	73	68		74	69	65		70
3	86	75	67	60	83	73	65	59	69	62	56		65	59	54		61
4	79	66	57	50	76	64	56	49	61	54	48		57	51	46		54
5	72	59	50	43	70	58	49	42	54	47	41		52	45	40		49
6	67	53	44	37	64	52	43	37	49	42	36		47	40	35		44
7	62	48	39	33	60	47	38	32	45	37	32		42	36	31		40
8	58	44	35	29	56	43	35	29	41	33	28		39	32	28		37
9	54	40	32	26	52	39	31	26	37	30	25		36	29	25		34
10	50	37	29	24	49	36	29	24	35	28	23		33	27	23		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10313	10313	10313
5°	10364	10273	10352
10°	10289	10256	10346
15°	10176	10200	10305
20°	10007	10102	10222
25°	9792	9954	10115
30°	9573	9846	10002
35°	9326	9724	9984
40°	9093	9649	9958
45°	8834	9611	10041
50°	8582	9612	10136
55°	8304	9655	10342
60°	8043	9774	10650
65°	7789	9994	11059
70°	7390	10379	11758
75°	6900	11112	13067
80°	6403	12937	15788
85°	6311	19587	25269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 45060 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	2.8
10°-20°	259.1	8.0
20°-30°	387.5	12.0
30°-40°	462.6	14.4
40°-50°	484.0	15.0
50°-60°	454.2	14.1
60°-70°	379.4	11.8
70°-80°	271.3	8.4
80°-90°	161.4	5.0
90°-100°	101.4	3.2
100°-110°	74.6	2.3
110°-120°	49.8	1.5
120°-130°	28.4	0.9
130°-140°	12.7	0.4
140°-150°	2.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	737.5	22.9
0°-40°	1200.1	37.3
0°-60°	2138.3	66.4
0°-90°	2950.4	91.6
90°-120°	225.8	7.0
90°-150°	269.6	8.4
90°-180°	270.0	8.4
0°-180°	3219.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	959	957	951	959	958	91
15°	913	916	915	926	925	257
25°	824	835	838	852	852	380
35°	710	726	740	756	760	444
45°	580	605	631	651	660	447
55°	442	477	514	543	551	396
65°	306	346	392	424	434	302
75°	166	215	267	302	314	177
85°	51	103	159	194	205	53
90°	14	65	118	153	164	10
95°	12	52	103	136	146	9
105°	8	33	78	108	117	8
115°	5	18	55	80	89	5
125°	3	3	33	55	63	3
135°	2	1	12	31	36	2
145°	1	0	0	8	12	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	958.1	958.1	958.1	958.1	958.1
2.5°	963.3	960.2	951.8	960.2	959.2
5°	959.2	957.1	950.8	959.2	958.1
7.5°	951.8	951.8	945.6	956.0	955.0
10°	941.4	943.5	938.3	948.7	946.6
12.5°	928.9	932.0	928.9	938.3	936.2
15°	913.2	916.4	915.3	925.8	924.7
17.5°	894.4	900.7	899.7	909.1	907.0
20°	873.6	879.8	881.9	891.3	892.4
22.5°	851.7	857.9	861.0	873.6	872.5
25°	824.5	835.0	838.1	851.7	851.7
27.5°	798.4	809.9	816.2	827.6	828.7
30°	770.2	783.8	792.2	804.7	804.7
32.5°	738.9	754.6	766.1	779.6	782.8
35°	709.7	726.4	740.0	755.6	759.8
37.5°	678.4	697.2	712.8	730.6	733.7
40°	647.1	665.9	686.7	704.5	708.7
42.5°	612.6	636.7	658.6	678.4	684.7
45°	580.3	605.3	631.4	651.3	659.6
47.5°	545.9	574.0	603.3	625.2	631.4
50°	512.5	541.7	574.0	598.0	605.3
52.5°	477.0	508.3	544.8	569.9	579.2
55°	442.5	477.0	514.5	542.7	551.1
57.5°	409.1	444.6	485.3	513.5	522.9
60°	373.6	411.2	454.0	483.2	494.7
62.5°	340.2	378.9	424.8	454.0	464.4
65°	305.8	346.5	392.4	423.7	434.2
67.5°	271.4	314.2	360.1	394.5	402.9
70°	234.8	279.7	329.8	363.2	373.6
72.5°	201.4	246.3	298.5	332.9	343.4
75°	165.9	215.0	267.2	301.6	314.2
77.5°	135.7	184.7	236.9	273.4	282.8
80°	103.3	154.5	208.7	244.2	254.7
82.5°	75.1	127.3	182.6	218.1	228.6
85°	51.1	103.3	158.6	194.1	204.6
87.5°	31.3	83.5	136.7	172.2	182.6
90°	13.6	64.7	117.9	153.4	163.9
92.5°	12.5	57.4	109.6	144.0	153.4
95°	11.5	52.2	103.3	135.7	146.1
97.5°	10.4	48.0	97.1	128.4	138.8
100°	9.4	42.8	90.8	121.1	131.5
102.5°	8.3	37.6	84.5	113.8	124.2
105°	8.3	33.4	78.3	107.5	116.9
107.5°	7.3	29.2	72.0	100.2	109.6
110°	6.3	25.0	66.8	93.9	102.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.3	20.9	60.5	86.6	96.0
115°	5.2	17.7	55.3	80.4	88.7
117.5°	5.2	13.6	49.1	74.1	82.5
120°	4.2	9.4	43.8	67.8	75.1
122.5°	4.2	6.3	38.6	61.6	68.9
125°	3.1	3.1	33.4	55.3	62.6
127.5°	3.1	2.1	28.2	49.1	56.4
130°	3.1	2.1	23.0	42.8	49.1
132.5°	2.1	2.1	17.7	36.5	43.8
135°	2.1	1.0	12.5	31.3	36.5
137.5°	2.1	1.0	8.3	25.0	30.3
140°	1.0	1.0	4.2	19.8	25.0
142.5°	1.0	0.0	0.0	13.6	18.8
145°	1.0	0.0	0.0	8.3	12.5
147.5°	0.0	0.0	0.0	3.1	7.3
150°	0.0	0.0	0.0	0.0	2.1
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)