

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P930804

Luminaire Tested: DFN2DS-SQ2F0-030DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930804
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-SQ2F0-030DS927-RLL
Description: 2 foot, Square Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

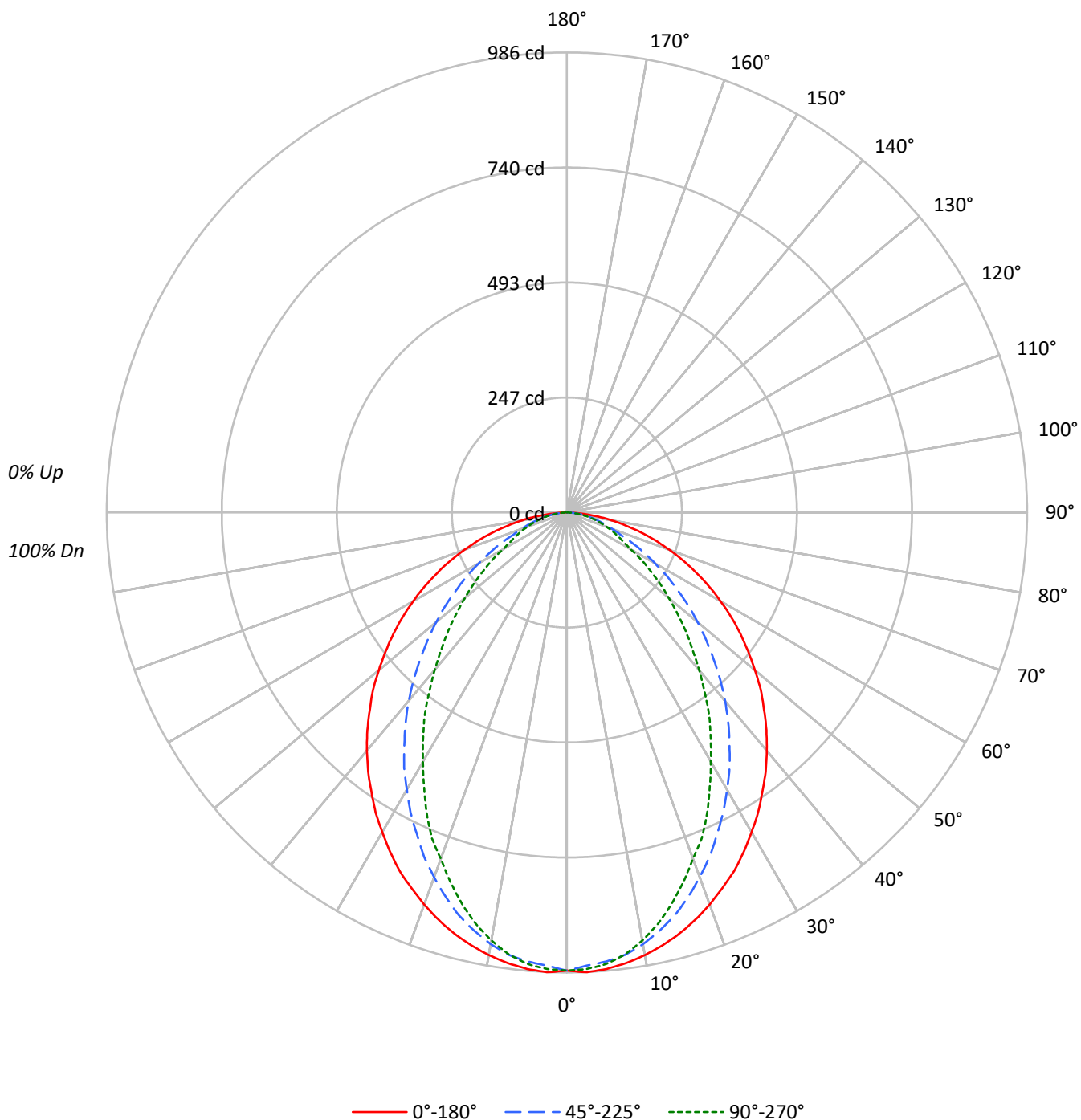
Lumens per Lamp: N/A
Luminaire Lumens: 2019.6 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9963
Total Harmonic Distortion (THDi): 0.065
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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2159	2159	2159
5°	2168	2132	2144
10°	2151	2098	2080
15°	2126	2035	1977
20°	2092	1946	1849
25°	2057	1846	1725
30°	2008	1742	1566
35°	1961	1629	1426
40°	1913	1513	1265
45°	1857	1382	1119
50°	1800	1250	976
55°	1741	1107	838
60°	1672	957	696
65°	1595	804	633
70°	1502	662	582
75°	1389	604	544
80°	1227	539	495
85°	964	426	426

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 1857 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	4.6
10°-20°	252.7	12.5
20°-30°	354.7	17.6
30°-40°	386.7	19.1
40°-50°	355.4	17.6
50°-60°	279.1	13.8
60°-70°	181.6	9.0
70°-80°	93.5	4.6
80°-90°	23.9	1.2
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°	699.4	34.6
0°-40°	1086.1	53.8
0°-60°	1720.5	85.2
0°-90°	2019.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2019.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	982	978	966	974	971	93
15°	934	924	894	877	868	263
25°	848	819	761	724	711	390
35°	730	685	607	551	531	457
45°	597	538	444	381	360	461
55°	454	385	289	236	219	406
65°	307	235	155	124	122	304
75°	164	101	71	65	64	173
85°	38	20	17	17	17	46
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	982.0	982.0	982.0	982.0	982.0
2.5°	986.4	982.0	972.2	981.1	979.4
5°	982.0	977.6	966.0	974.0	971.3
7.5°	974.0	968.7	956.3	959.7	955.3
10°	963.3	957.1	939.4	936.6	931.4
12.5°	950.0	942.0	918.0	912.7	902.9
15°	934.0	924.2	894.0	877.1	868.3
17.5°	915.3	901.1	863.8	844.3	830.0
20°	894.0	876.2	831.8	809.7	790.0
22.5°	871.0	850.4	798.9	768.7	755.4
25°	847.8	819.3	760.7	724.3	710.9
27.5°	820.3	790.0	725.2	683.4	662.9
30°	791.0	757.2	686.0	640.8	616.7
32.5°	762.5	721.6	648.8	595.4	573.2
35°	730.5	685.2	607.0	551.0	531.4
37.5°	699.4	650.5	567.9	506.5	484.4
40°	666.5	613.2	527.0	463.9	440.8
42.5°	632.7	575.9	486.1	420.3	398.1
45°	597.2	537.6	444.4	381.2	359.9
47.5°	563.4	500.4	404.4	341.2	321.7
50°	526.1	463.0	365.3	303.9	285.3
52.5°	489.6	423.0	328.0	269.3	252.4
55°	454.1	384.8	288.8	235.5	218.7
57.5°	417.7	346.6	254.2	204.4	190.2
60°	380.3	309.3	217.7	172.4	158.2
62.5°	344.0	272.8	186.6	144.0	136.9
65°	306.6	234.6	154.6	124.4	121.7
67.5°	271.1	199.0	124.4	109.3	106.6
70°	233.7	164.4	103.0	94.2	90.6
72.5°	198.2	132.3	86.2	79.1	77.3
75°	163.5	101.3	71.1	64.9	64.0
77.5°	128.9	71.9	56.0	52.4	50.6
80°	96.9	51.6	42.6	39.1	39.1
82.5°	67.5	34.7	29.3	27.6	27.6
85°	38.2	19.5	16.9	16.9	16.9
87.5°	14.3	7.0	7.0	6.3	6.3
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	13.91	15.43	14.27	15.74	16.06	9.87	11.39	10.23	11.70	12.02
	3H	15.67	17.04	16.05	17.37	17.73	11.13	12.50	11.51	12.83	13.19
	4H	16.34	17.62	16.74	17.97	18.35	11.64	12.92	12.04	13.27	13.64
	6H	16.83	18.01	17.24	18.38	18.77	12.02	13.20	12.43	13.57	13.96
	8H	17.00	18.12	17.42	18.51	18.91	12.14	13.27	12.57	13.66	14.06
	12H	17.10	18.18	17.53	18.56	18.99	12.22	13.30	12.65	13.68	14.11
4H	2H	14.01	15.29	14.41	15.64	16.02	10.56	11.85	10.96	12.19	12.57
	3H	15.95	17.01	16.36	17.41	17.81	12.01	13.07	12.42	13.47	13.87
	4H	16.70	17.65	17.13	18.07	18.51	12.61	13.56	13.04	13.98	14.42
	6H	17.29	18.12	17.75	18.56	19.02	13.10	13.93	13.55	14.37	14.83
	8H	17.50	18.28	17.97	18.72	19.19	13.26	14.04	13.72	14.48	14.95
	12H	17.66	18.35	18.14	18.83	19.30	13.38	14.07	13.86	14.55	15.02
8H	4H	16.72	17.50	17.18	17.94	18.41	12.96	13.74	13.42	14.18	14.65
	6H	17.36	18.00	17.85	18.49	18.97	13.55	14.19	14.04	14.68	15.16
	8H	17.61	18.18	18.12	18.69	19.18	13.77	14.35	14.28	14.86	15.34
	12H	17.81	18.32	18.32	18.81	19.38	13.95	14.46	14.46	14.95	15.52
12H	4H	16.70	17.40	17.19	17.88	18.35	13.00	13.70	13.49	14.18	14.65
	6H	17.34	17.92	17.85	18.43	18.91	13.61	14.19	14.12	14.70	15.19
	8H	17.62	18.13	18.13	18.62	19.19	13.88	14.39	14.39	14.89	15.45