

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: P930444

Luminaire Tested: DFN2DS-PN2F0-030DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930444
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-PN2F0-030DS927-RLL
Description: 2 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

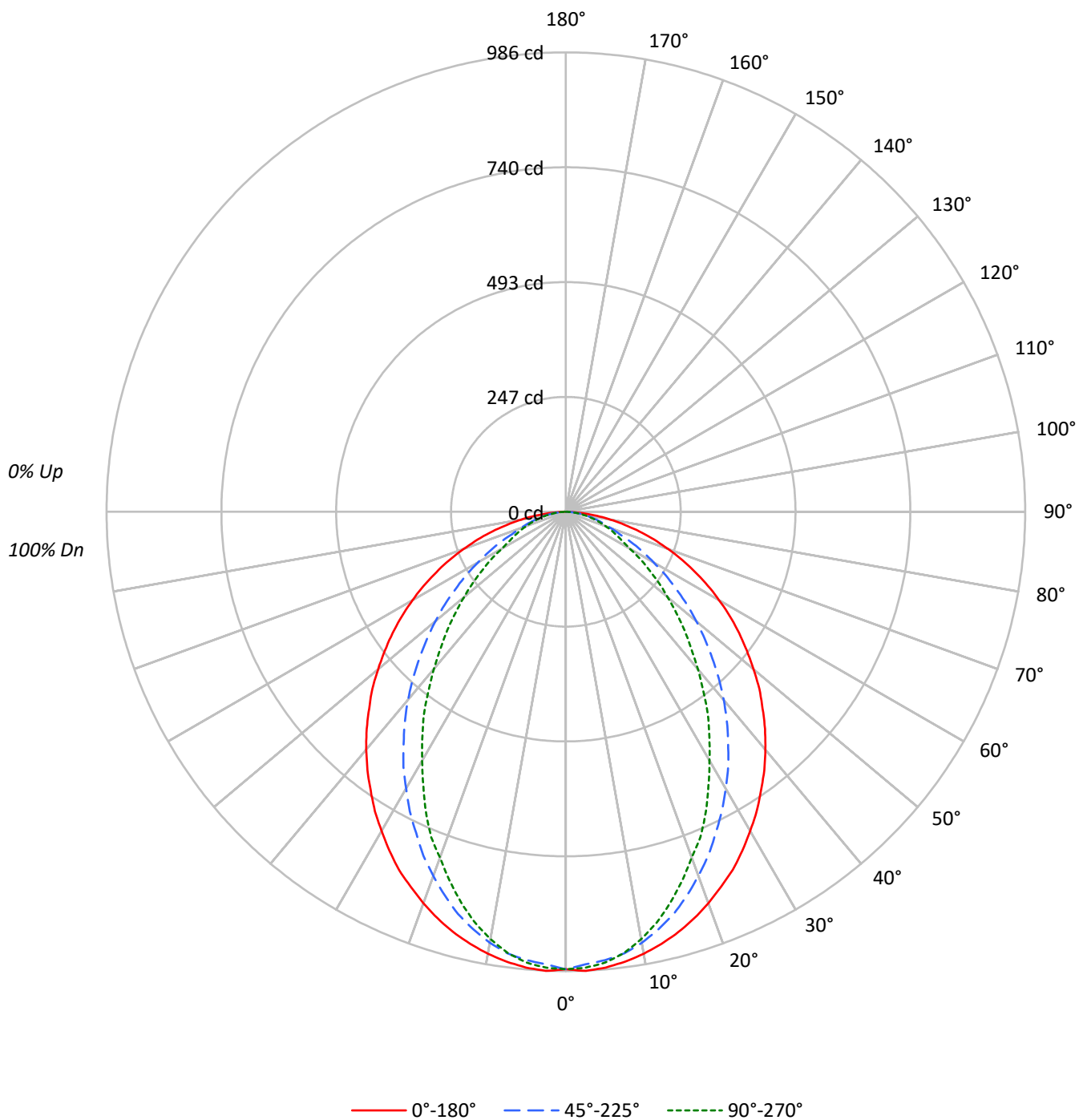
Lumens per Lamp: N/A
Luminaire Lumens: 2019.6 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 30.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9972
Total Harmonic Distortion (THDi): 0.128
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930444

CATALOG NUMBER: DFN2DS-PN2F0-030DS927-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930444

CATALOG NUMBER: DFN2DS-PN2F0-030DS927-RLL

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°	2127	2127	2127
5°	2135	2100	2112
10°	2119	2066	2048
15°	2094	2005	1947
20°	2061	1917	1821
25°	2026	1818	1699
30°	1978	1716	1542
35°	1931	1605	1405
40°	1884	1490	1246
45°	1829	1361	1102
50°	1773	1231	961
55°	1715	1091	826
60°	1647	943	685
65°	1571	792	624
70°	1480	652	574
75°	1368	595	536
80°	1209	531	488
85°	949	420	420

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 1829 cd/sqm

TEST NUMBER: P930444

CATALOG NUMBER: DFN2DS-PN2F0-030DS927-RLL

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	

TEST NUMBER: P930444

CATALOG NUMBER: DFN2DS-PN2F0-030DS927-RLL

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

TEST NUMBER: P930444

CATALOG NUMBER: DFN2DS-PN2F0-030DS927-RLL

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	13.86	15.38	14.22	15.69	16.01	9.82	11.34	10.18	11.65	11.97
	3H	15.62	16.99	16.00	17.31	17.68	11.08	12.45	11.46	12.78	13.14
	4H	16.29	17.57	16.69	17.92	18.30	11.58	12.86	11.98	13.21	13.59
	6H	16.78	17.96	17.19	18.33	18.72	11.96	13.15	12.38	13.51	13.91
	8H	16.94	18.07	17.37	18.46	18.86	12.09	13.22	12.52	13.61	14.01
	12H	17.05	18.12	17.48	18.51	18.94	12.17	13.25	12.60	13.63	14.06
4H	2H	13.96	15.24	14.36	15.59	15.97	10.51	11.79	10.91	12.14	12.52
	3H	15.89	16.96	16.30	17.36	17.76	11.96	13.02	12.37	13.42	13.82
	4H	16.64	17.60	17.08	18.02	18.45	12.56	13.51	12.99	13.93	14.37
	6H	17.24	18.07	17.69	18.51	18.97	13.04	13.87	13.50	14.32	14.78
	8H	17.45	18.23	17.91	18.67	19.14	13.21	13.98	13.67	14.43	14.89
	12H	17.60	18.30	18.09	18.78	19.25	13.32	14.02	13.81	14.50	14.97
8H	4H	16.67	17.44	17.13	17.89	18.36	12.91	13.69	13.37	14.13	14.60
	6H	17.31	17.95	17.80	18.44	18.92	13.49	14.14	13.99	14.63	15.11
	8H	17.56	18.13	18.07	18.64	19.13	13.72	14.29	14.23	14.80	15.29
	12H	17.76	18.27	18.27	18.76	19.33	13.90	14.41	14.41	14.90	15.46
12H	4H	16.65	17.35	17.13	17.82	18.30	12.95	13.65	13.43	14.12	14.60
	6H	17.29	17.86	17.80	18.37	18.86	13.56	14.14	14.07	14.65	15.13
	8H	17.57	18.08	18.08	18.57	19.14	13.83	14.34	14.34	14.83	15.40