

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: P930600

Luminaire Tested: DFN2DS-PN3F0-080DS835-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930600
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-PN3F0-080DS835-RLL
Description: 3 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

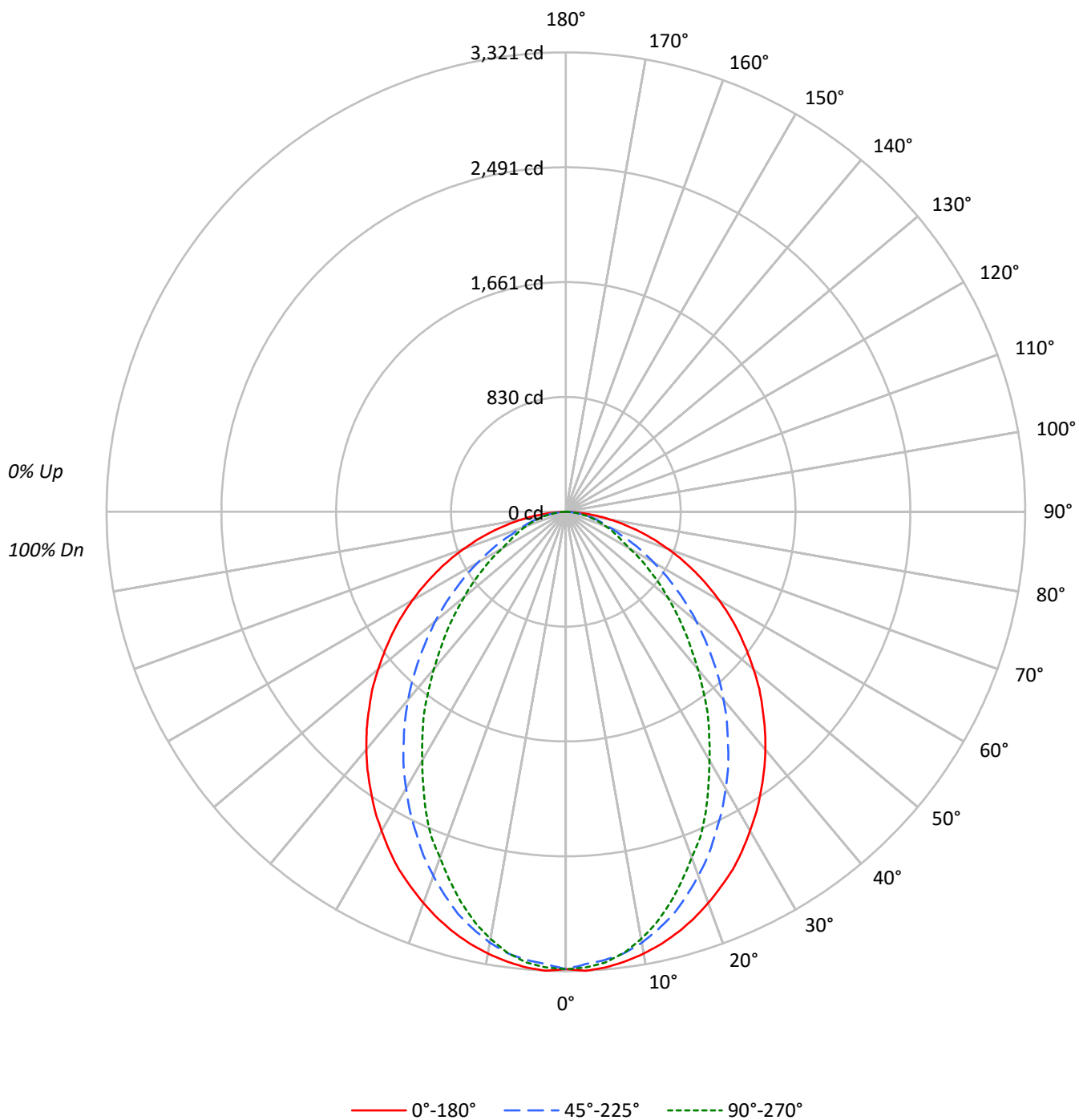
Lumens per Lamp: N/A
Luminaire Lumens: 6800.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

Input Watts (W): 84.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9967
Total Harmonic Distortion (THDi): 0.063
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930600

CATALOG NUMBER: DFN2DS-PN3F0-080DS835-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930600

CATALOG NUMBER: DFN2DS-PN3F0-080DS835-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°	3865	3865	3865
5°	3880	3817	3838
10°	3850	3754	3722
15°	3806	3643	3538
20°	3745	3484	3309
25°	3682	3304	3087
30°	3595	3118	2803
35°	3510	2917	2553
40°	3425	2708	2265
45°	3324	2474	2003
50°	3221	2237	1747
55°	3116	1982	1500
60°	2994	1714	1245
65°	2856	1440	1134
70°	2690	1186	1043
75°	2486	1081	974
80°	2195	966	887
85°	1725	762	762

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3324 cd/sqm

TEST NUMBER: P930600

CATALOG NUMBER: DFN2DS-PN3F0-080DS835-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	309.9	4.6
10°-20°	850.7	12.5
20°-30°	1194.3	17.6
30°-40°	1301.9	19.1
40°-50°	1196.6	17.6
50°-60°	939.7	13.8
60°-70°	611.7	9.0
70°-80°	314.9	4.6
80°-90°	80.4	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°	2354.9	34.6
0°-40°	3656.8	53.8
0°-60°	5793.1	85.2
0°-90°	6800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3306	3306	3306	3306	3306	
5°	3306	3292	3252	3279	3270	314
15°	3145	3112	3010	2953	2924	886
25°	2855	2759	2561	2439	2394	1313
35°	2460	2307	2044	1855	1789	1540
45°	2011	1810	1496	1284	1212	1553
55°	1529	1296	972	793	736	1366
65°	1032	790	521	419	410	1024
75°	550	341	239	218	216	582
85°	129	66	57	57	57	154
90°	0	0	0	0	0	



TEST NUMBER: P930600

CATALOG NUMBER: DFN2DS-PN3F0-080DS835-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3306.4	3306.4	3306.4	3306.4	3306.4
2.5°	3321.3	3306.4	3273.4	3303.5	3297.5
5°	3306.4	3291.5	3252.4	3279.4	3270.5
7.5°	3279.4	3261.6	3219.7	3231.5	3216.5
10°	3243.5	3222.6	3162.9	3153.7	3135.9
12.5°	3198.8	3171.8	3090.8	3073.0	3040.0
15°	3144.8	3111.8	3010.2	2953.4	2923.5
17.5°	3081.9	3034.0	2908.3	2842.6	2794.6
20°	3010.2	2950.2	2800.7	2726.1	2660.0
22.5°	2932.4	2863.5	2689.9	2588.3	2543.5
25°	2854.6	2758.8	2561.3	2438.8	2393.7
27.5°	2761.9	2660.0	2441.6	2301.0	2232.1
30°	2663.2	2549.2	2309.9	2157.5	2076.5
32.5°	2567.3	2429.6	2184.5	2004.8	1929.9
35°	2459.7	2307.0	2043.8	1855.3	1789.2
37.5°	2354.9	2190.2	1912.1	1705.4	1630.8
40°	2244.2	2064.8	1774.3	1561.9	1484.1
42.5°	2130.5	1939.1	1636.8	1415.3	1340.6
45°	2010.8	1810.2	1496.2	1283.5	1211.8
47.5°	1897.2	1684.8	1361.6	1148.9	1083.2
50°	1771.4	1559.1	1229.9	1023.2	960.6
52.5°	1648.6	1424.1	1104.1	906.7	849.9
55°	1528.9	1295.6	972.4	793.0	736.2
57.5°	1406.4	1167.0	855.9	688.3	640.3
60°	1280.6	1041.3	733.0	580.6	532.7
62.5°	1158.1	918.7	628.3	484.8	461.0
65°	1032.4	789.8	520.6	419.1	409.8
67.5°	912.7	670.2	419.1	367.9	359.1
70°	787.0	553.7	347.0	317.1	305.1
72.5°	667.3	445.7	290.2	266.4	260.3
75°	550.5	341.0	239.4	218.4	215.6
77.5°	434.0	242.2	188.6	176.5	170.5
80°	326.0	173.7	143.5	131.7	131.7
82.5°	227.3	116.8	98.7	92.7	92.7
85°	128.6	65.7	56.8	56.8	56.8
87.5°	47.9	23.8	23.8	21.0	21.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930600

CATALOG NUMBER: DFN2DS-PN3F0-080DS835-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	15.93	17.45	16.30	17.77	18.08	11.89	13.41	12.26	13.73	14.04
	3H	17.70	19.06	18.08	19.39	19.75	13.16	14.52	13.54	14.85	15.21
	4H	18.36	19.64	18.76	19.99	20.37	13.66	14.94	14.06	15.29	15.67
	6H	18.85	20.04	19.26	20.40	20.79	14.04	15.22	14.45	15.59	15.98
	8H	19.02	20.14	19.44	20.53	20.94	14.17	15.29	14.59	15.68	16.08
	12H	19.12	20.20	19.55	20.58	21.01	14.25	15.32	14.68	15.71	16.14
4H	2H	16.04	17.32	16.44	17.67	18.04	12.59	13.87	12.99	14.22	14.60
	3H	17.97	19.03	18.38	19.43	19.83	14.03	15.09	14.44	15.49	15.89
	4H	18.72	19.68	19.15	20.09	20.53	14.63	15.59	15.06	16.00	16.44
	6H	19.31	20.14	19.77	20.59	21.04	15.12	15.95	15.58	16.39	16.85
	8H	19.52	20.30	19.99	20.75	21.21	15.28	16.06	15.74	16.50	16.97
	12H	19.68	20.37	20.16	20.85	21.32	15.40	16.09	15.88	16.57	17.04
8H	4H	18.74	19.52	19.21	19.96	20.43	14.98	15.76	15.45	16.21	16.67
	6H	19.38	20.02	19.88	20.51	20.99	15.57	16.21	16.07	16.70	17.18
	8H	19.63	20.21	20.14	20.72	21.21	15.79	16.37	16.31	16.88	17.37
	12H	19.83	20.34	20.34	20.84	21.40	15.97	16.48	16.48	16.97	17.54
12H	4H	18.73	19.42	19.21	19.90	20.37	15.03	15.72	15.51	16.20	16.67
	6H	19.36	19.94	19.88	20.45	20.94	15.63	16.21	16.15	16.72	17.21
	8H	19.65	20.16	20.16	20.65	21.21	15.91	16.42	16.42	16.91	17.47