

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: P930601

Luminaire Tested: DFN2DS-PN3F0-080DS840-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930601
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-PN3F0-080DS840-FLL
Description: 3 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

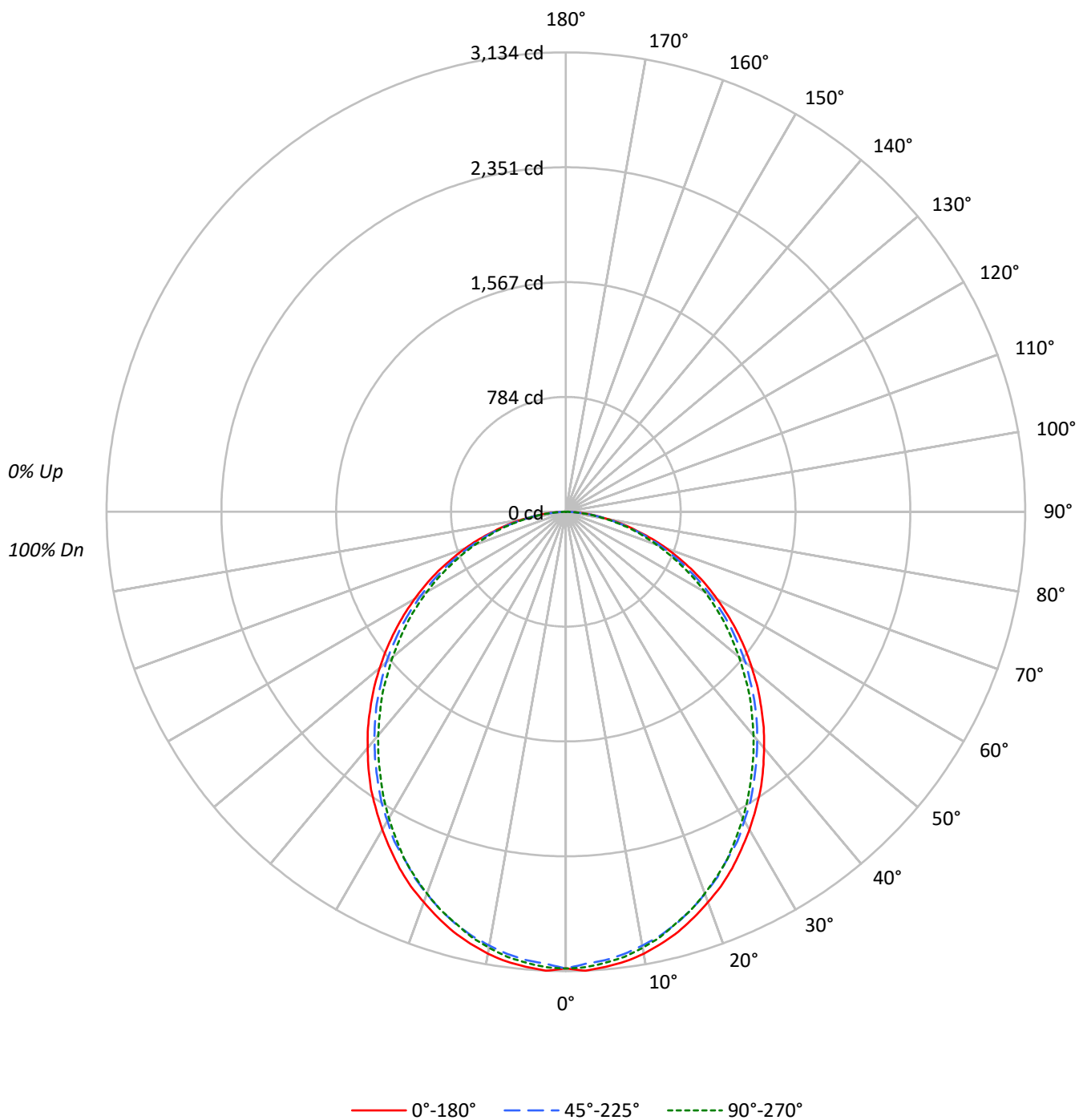
Lumens per Lamp: N/A
Luminaire Lumens: 7927.9 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

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: P930601

CATALOG NUMBER: DFN2DS-PN3F0-080DS840-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930601

CATALOG NUMBER: DFN2DS-PN3F0-080DS840-FLL

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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3642	3642	3642
5°	3656	3604	3625
10°	3635	3567	3585
15°	3590	3521	3518
20°	3526	3452	3448
25°	3463	3366	3366
30°	3381	3288	3260
35°	3305	3194	3147
40°	3210	3100	3041
45°	3116	3006	2933
50°	3013	2910	2806
55°	2907	2797	2693
60°	2788	2662	2564
65°	2661	2528	2412
70°	2499	2366	2253
75°	2273	2178	2125
80°	2018	1956	1855
85°	1646	1569	1407

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3116 cd/sqm

TEST NUMBER: P930601

CATALOG NUMBER: DFN2DS-PN3F0-080DS840-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.3	3.7
10°-20°	825.2	10.4
20°-30°	1212.7	15.3
30°-40°	1408.4	17.8
40°-50°	1406.7	17.7
50°-60°	1226.6	15.5
60°-70°	906.7	11.4
70°-80°	513.0	6.5
80°-90°	135.4	1.7
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°	2331.1	29.4
0°-40°	3739.5	47.2
0°-60°	6372.8	80.4
0°-90°	7927.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7927.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3116	3116	3116	3116	3116	
5°	3116	3104	3071	3095	3089	296
15°	2966	2948	2909	2921	2906	835
25°	2685	2661	2610	2616	2610	1235
35°	2316	2286	2238	2220	2205	1446
45°	1885	1864	1819	1786	1774	1455
55°	1426	1408	1372	1336	1321	1275
65°	962	944	914	887	872	951
75°	503	498	482	464	470	537
85°	123	120	117	108	105	144
90°	0	0	0	0	0	

TEST NUMBER: P930601

CATALOG NUMBER: DFN2DS-PN3F0-080DS840-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3115.9	3115.9	3115.9	3115.9	3115.9
2.5°	3134.0	3119.1	3086.1	3115.9	3110.2
5°	3115.9	3104.2	3071.2	3095.0	3089.3
7.5°	3095.0	3077.2	3044.1	3068.3	3062.3
10°	3062.3	3041.2	3005.3	3029.1	3020.3
12.5°	3017.1	2999.3	2963.4	2978.3	2972.3
15°	2966.3	2948.4	2909.3	2921.4	2906.5
17.5°	2903.3	2885.5	2846.3	2861.4	2846.3
20°	2834.3	2816.5	2774.6	2783.5	2771.7
22.5°	2765.7	2738.6	2699.5	2699.5	2693.5
25°	2684.6	2660.8	2609.9	2615.6	2609.9
27.5°	2594.6	2573.7	2534.8	2525.9	2511.0
30°	2505.0	2480.8	2436.0	2427.1	2415.0
32.5°	2409.0	2391.2	2343.1	2325.0	2313.0
35°	2316.1	2286.3	2238.2	2220.1	2205.2
37.5°	2211.2	2184.2	2136.2	2115.2	2100.3
40°	2103.5	2079.3	2031.3	2004.6	1992.5
42.5°	1998.6	1974.4	1926.7	1896.5	1878.8
45°	1884.8	1863.8	1818.6	1785.9	1773.9
47.5°	1773.9	1752.9	1704.8	1671.8	1654.0
50°	1656.9	1641.9	1599.9	1558.0	1543.0
52.5°	1543.0	1522.0	1483.3	1450.2	1429.2
55°	1426.3	1408.2	1372.4	1336.4	1321.4
57.5°	1309.4	1294.5	1255.4	1219.4	1207.3
60°	1192.4	1180.7	1138.6	1105.6	1096.7
62.5°	1078.6	1057.7	1027.7	997.9	985.8
65°	962.0	943.8	913.9	886.9	872.0
67.5°	842.0	826.8	800.1	779.2	767.1
70°	731.1	719.0	692.1	671.1	659.3
72.5°	617.3	605.3	590.3	569.4	560.5
75°	503.2	497.5	482.3	464.5	470.5
77.5°	401.5	389.4	383.4	374.5	365.6
80°	299.8	296.6	290.6	281.7	275.6
82.5°	203.8	203.8	200.9	188.8	188.8
85°	122.7	119.8	117.0	107.8	104.9
87.5°	54.1	48.0	41.9	33.0	29.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930601

CATALOG NUMBER: DFN2DS-PN3F0-080DS840-FLL

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	15.77	17.38	16.14	17.70	18.01	15.33	16.94	15.69	17.25	17.57
	3H	17.52	18.98	17.90	19.30	19.67	17.03	18.49	17.41	18.81	19.17
	4H	18.17	19.54	18.57	19.89	20.26	17.68	19.04	18.07	19.39	19.77
	6H	18.64	19.91	19.05	20.27	20.66	18.14	19.41	18.55	19.77	20.16
	8H	18.78	19.99	19.21	20.38	20.78	18.28	19.49	18.70	19.88	20.28
	12H	18.87	20.03	19.30	20.41	20.84	18.36	19.52	18.79	19.90	20.33
4H	2H	16.33	17.70	16.73	18.05	18.43	15.98	17.35	16.38	17.70	18.07
	3H	18.31	19.46	18.72	19.85	20.25	17.90	19.05	18.31	19.45	19.85
	4H	19.09	20.12	19.52	20.54	20.97	18.66	19.70	19.09	20.11	20.55
	6H	19.68	20.59	20.14	21.03	21.48	19.25	20.15	19.70	20.60	21.05
	8H	19.87	20.72	20.33	21.16	21.63	19.43	20.28	19.89	20.72	21.19
	12H	20.00	20.76	20.48	21.24	21.71	19.55	20.31	20.03	20.79	21.26
8H	4H	19.36	20.21	19.82	20.65	21.11	18.99	19.83	19.45	20.27	20.74
	6H	20.07	20.78	20.57	21.26	21.74	19.69	20.40	20.19	20.88	21.36
	8H	20.33	20.96	20.84	21.47	21.96	19.94	20.57	20.45	21.08	21.56
	12H	20.53	21.09	21.04	21.58	22.14	20.12	20.68	20.63	21.17	21.73
12H	4H	19.39	20.15	19.87	20.62	21.09	19.02	19.78	19.50	20.26	20.73
	6H	20.12	20.75	20.63	21.26	21.74	19.75	20.38	20.26	20.89	21.38
	8H	20.43	20.99	20.94	21.48	22.04	20.06	20.61	20.56	21.10	21.66