

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: P930462

Luminaire Tested: DFN2DS-PN2F0-040DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930462
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-PN2F0-040DS927-RLL
Description: 2 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

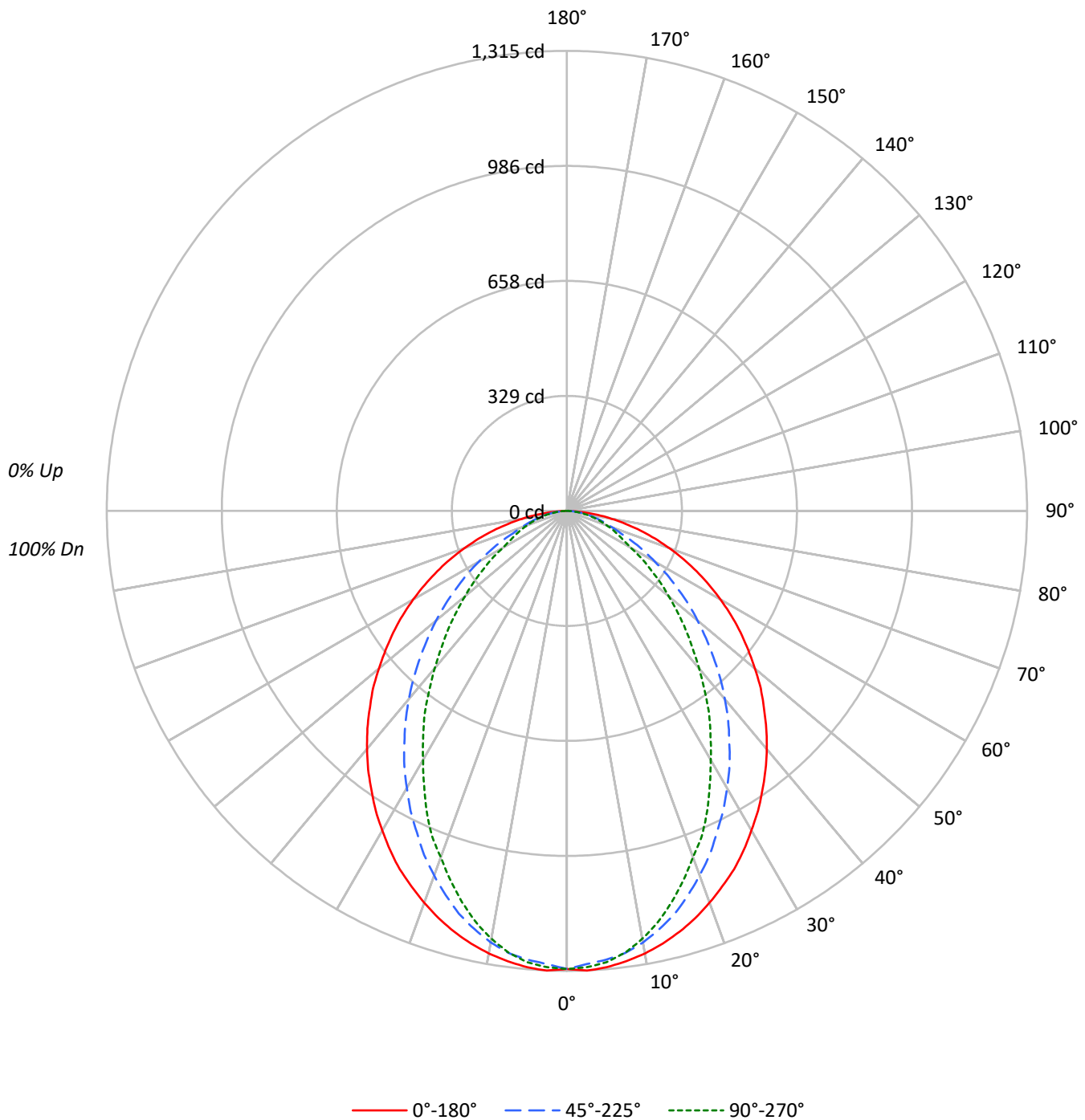
Lumens per Lamp: N/A
Luminaire Lumens: 2692.8 lumens
Efficiency: N/A
Efficacy: 63.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 42.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9613
Total Harmonic Distortion (THDi): 0.083
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930462

CATALOG NUMBER: DFN2DS-PN2F0-040DS927-RLL

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°	2836	2836	2836
5°	2847	2800	2816
10°	2825	2755	2731
15°	2792	2673	2596
20°	2747	2556	2428
25°	2701	2424	2265
30°	2637	2288	2057
35°	2576	2140	1873
40°	2513	1987	1662
45°	2439	1815	1470
50°	2364	1641	1282
55°	2286	1454	1101
60°	2197	1258	914
65°	2095	1057	832
70°	1974	870	765
75°	1824	793	715
80°	1610	708	651
85°	1265	559	559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2439 cd/sqm

TEST NUMBER: P930462

CATALOG NUMBER: DFN2DS-PN2F0-040DS927-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	4.6
10°-20°	336.9	12.5
20°-30°	473.0	17.6
30°-40°	515.5	19.1
40°-50°	473.8	17.6
50°-60°	372.1	13.8
60°-70°	242.2	9.0
70°-80°	124.7	4.6
80°-90°	31.8	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°	932.5	34.6
0°-40°	1448.1	53.8
0°-60°	2294.1	85.2
0°-90°	2692.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2692.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1309	1309	1309	1309	1309	
5°	1309	1303	1288	1299	1295	124
15°	1245	1232	1192	1170	1158	351
25°	1130	1092	1014	966	948	520
35°	974	914	809	735	708	610
45°	796	717	592	508	480	615
55°	606	513	385	314	292	541
65°	409	313	206	166	162	405
75°	218	135	95	86	85	231
85°	51	26	22	22	22	61
90°	0	0	0	0	0	

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CATALOG NUMBER: DFN2DS-PN2F0-040DS927-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1309.3	1309.3	1309.3	1309.3	1309.3
2.5°	1315.3	1309.3	1296.3	1308.2	1305.8
5°	1309.3	1303.4	1288.0	1298.6	1295.2
7.5°	1298.6	1291.6	1275.0	1279.6	1273.8
10°	1284.5	1276.1	1252.5	1248.8	1241.9
12.5°	1266.7	1256.0	1224.0	1216.9	1203.8
15°	1245.3	1232.3	1192.0	1169.5	1157.7
17.5°	1220.5	1201.5	1151.6	1125.7	1106.7
20°	1192.0	1168.3	1109.0	1079.5	1053.4
22.5°	1161.2	1134.0	1065.2	1024.9	1007.3
25°	1130.4	1092.5	1014.2	965.8	947.9
27.5°	1093.8	1053.4	966.9	911.2	883.9
30°	1054.6	1009.5	914.7	854.3	822.3
32.5°	1016.7	962.1	865.0	793.9	764.2
35°	974.1	913.6	809.3	734.7	708.5
37.5°	932.6	867.3	757.2	675.3	645.8
40°	888.7	817.7	702.7	618.6	587.7
42.5°	843.6	767.8	648.2	560.4	530.9
45°	796.3	716.8	592.5	508.3	479.9
47.5°	751.3	667.2	539.2	455.0	428.9
50°	701.5	617.4	487.0	405.2	380.4
52.5°	652.8	564.0	437.3	359.0	336.5
55°	605.5	513.1	385.1	314.0	291.5
57.5°	556.9	462.1	338.9	272.5	253.6
60°	507.1	412.3	290.3	229.9	211.0
62.5°	458.6	363.8	248.8	192.0	182.6
65°	408.8	312.8	206.2	165.9	162.3
67.5°	361.5	265.4	165.9	145.7	142.2
70°	311.7	219.2	137.4	125.6	120.8
72.5°	264.3	176.5	114.9	105.5	103.1
75°	218.0	135.0	94.8	86.5	85.4
77.5°	171.9	95.9	74.7	69.9	67.5
80°	129.1	68.7	56.8	52.2	52.2
82.5°	90.1	46.3	39.1	36.7	36.7
85°	50.9	26.1	22.5	22.5	22.5
87.5°	19.0	9.4	9.4	8.3	8.3
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	14.86	16.38	15.22	16.69	17.01	10.82	12.34	11.18	12.65	12.97
	3H	16.62	17.99	17.00	18.31	18.68	12.08	13.45	12.46	13.77	14.14
	4H	17.29	18.57	17.69	18.92	19.30	12.58	13.86	12.98	14.21	14.59
	6H	17.78	18.96	18.19	19.33	19.72	12.96	14.15	13.38	14.51	14.91
	8H	17.94	19.07	18.37	19.46	19.86	13.09	14.22	13.52	14.61	15.01
	12H	18.05	19.12	18.48	19.51	19.94	13.17	14.25	13.60	14.63	15.06
4H	2H	14.96	16.24	15.36	16.59	16.97	11.51	12.79	11.91	13.14	13.52
	3H	16.89	17.96	17.30	18.36	18.76	12.96	14.02	13.37	14.42	14.82
	4H	17.64	18.60	18.08	19.01	19.45	13.55	14.51	13.99	14.93	15.37
	6H	18.23	19.07	18.69	19.51	19.97	14.04	14.88	14.50	15.32	15.78
	8H	18.45	19.23	18.91	19.67	20.14	14.21	14.98	14.67	15.43	15.89
	12H	18.60	19.30	19.09	19.78	20.25	14.32	15.02	14.80	15.50	15.97
8H	4H	17.67	18.44	18.13	18.89	19.36	13.91	14.69	14.37	15.13	15.60
	6H	18.30	18.95	18.80	19.44	19.92	14.50	15.14	14.99	15.63	16.11
	8H	18.56	19.13	19.07	19.64	20.13	14.72	15.29	15.23	15.80	16.29
	12H	18.76	19.27	19.27	19.76	20.33	14.90	15.41	15.41	15.90	16.46
12H	4H	17.65	18.35	18.13	18.82	19.30	13.95	14.65	14.43	15.12	15.60
	6H	18.29	18.86	18.80	19.37	19.86	14.56	15.14	15.07	15.65	16.13
	8H	18.57	19.08	19.08	19.57	20.14	14.83	15.34	15.34	15.83	16.40

END OF REPORT