

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: P930614

Luminaire Tested: DFN2DS-PN3F0-080DS950-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930614
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-PN3F0-080DS950-RLL
Description: 3 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

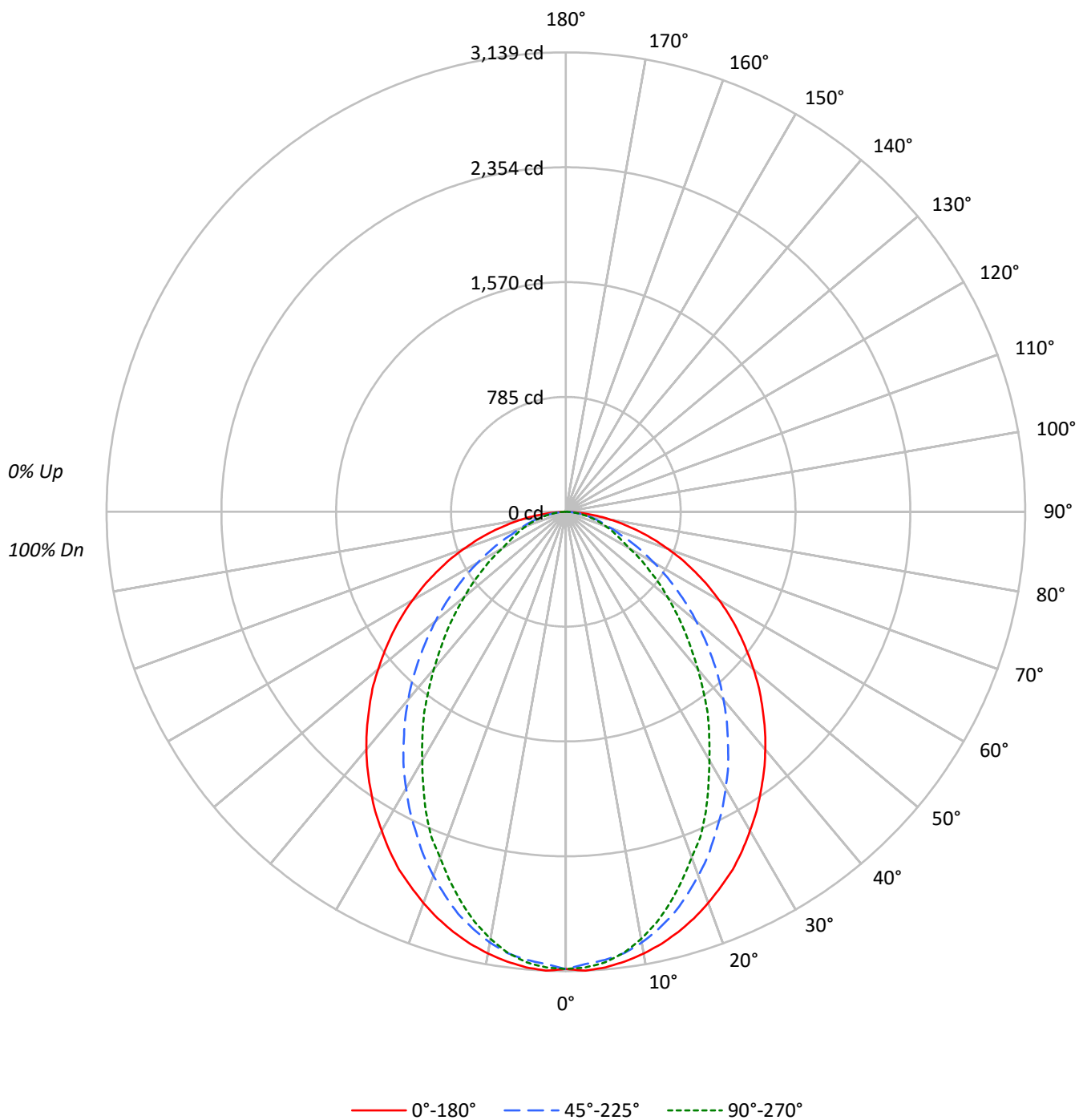
Lumens per Lamp: N/A
Luminaire Lumens: 6426.0 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

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

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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°	3652	3652	3652
5°	3666	3607	3627
10°	3638	3548	3518
15°	3597	3443	3343
20°	3539	3293	3127
25°	3479	3122	2918
30°	3397	2947	2649
35°	3317	2756	2413
40°	3236	2559	2140
45°	3141	2337	1893
50°	3044	2114	1651
55°	2945	1873	1418
60°	2829	1620	1177
65°	2699	1361	1071
70°	2542	1121	985
75°	2350	1022	920
80°	2074	913	838
85°	1630	720	720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3141 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.8	4.6
10°-20°	803.9	12.5
20°-30°	1128.6	17.6
30°-40°	1230.3	19.1
40°-50°	1130.8	17.6
50°-60°	888.0	13.8
60°-70°	578.0	9.0
70°-80°	297.5	4.6
80°-90°	76.0	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°	2225.4	34.6
0°-40°	3455.7	53.8
0°-60°	5474.5	85.2
0°-90°	6426.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6426.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3124	3124	3124	3124	3124	
5°	3124	3110	3074	3099	3091	296
15°	2972	2941	2845	2791	2763	837
25°	2698	2607	2420	2305	2262	1241
35°	2324	2180	1931	1753	1691	1455
45°	1900	1711	1414	1213	1145	1467
55°	1445	1224	919	749	696	1291
65°	976	746	492	396	387	967
75°	520	322	226	206	204	550
85°	122	62	54	54	54	146
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3124.5	3124.5	3124.5	3124.5	3124.5
2.5°	3138.6	3124.5	3093.4	3121.8	3116.1
5°	3124.5	3110.5	3073.5	3099.0	3090.6
7.5°	3099.0	3082.2	3042.6	3053.8	3039.6
10°	3065.1	3045.4	2988.9	2980.2	2963.4
12.5°	3022.9	2997.4	2920.8	2904.0	2872.8
15°	2971.8	2940.7	2844.6	2791.0	2762.7
17.5°	2912.4	2867.1	2748.3	2686.3	2640.9
20°	2844.6	2787.9	2646.7	2576.2	2513.7
22.5°	2771.1	2706.0	2542.0	2445.9	2403.6
25°	2697.6	2607.1	2420.4	2304.7	2262.0
27.5°	2610.0	2513.7	2307.3	2174.4	2109.3
30°	2516.7	2409.0	2182.9	2038.8	1962.3
32.5°	2426.1	2296.0	2064.4	1894.5	1823.8
35°	2324.4	2180.1	1931.4	1753.3	1690.8
37.5°	2225.4	2069.7	1806.9	1611.6	1541.1
40°	2120.8	1951.2	1676.7	1476.0	1402.5
42.5°	2013.3	1832.4	1546.8	1337.5	1266.9
45°	1900.2	1710.6	1413.9	1212.9	1145.2
47.5°	1792.9	1592.1	1286.7	1085.7	1023.6
50°	1674.0	1473.3	1162.3	966.9	907.8
52.5°	1557.9	1345.8	1043.4	856.8	803.2
55°	1444.8	1224.3	918.9	749.4	695.7
57.5°	1329.0	1102.8	808.8	650.4	605.1
60°	1210.2	984.0	692.7	548.7	503.4
62.5°	1094.4	868.2	593.7	458.1	435.6
65°	975.6	746.4	492.0	396.0	387.3
67.5°	862.5	633.3	396.0	347.7	339.3
70°	743.7	523.2	327.9	299.7	288.3
72.5°	630.6	421.2	274.2	251.7	246.0
75°	520.2	322.2	226.2	206.4	203.7
77.5°	410.1	228.9	178.2	166.8	161.1
80°	308.1	164.1	135.6	124.5	124.5
82.5°	214.8	110.4	93.3	87.6	87.6
85°	121.5	62.1	53.7	53.7	53.7
87.5°	45.3	22.5	22.5	19.8	19.8
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	15.74	17.26	16.10	17.57	17.89	11.70	13.22	12.06	13.53	13.85
	3H	17.50	18.87	17.88	19.19	19.56	12.96	14.33	13.34	14.65	15.02
	4H	18.17	19.45	18.57	19.80	20.17	13.46	14.74	13.86	15.09	15.47
	6H	18.66	19.84	19.07	20.21	20.60	13.84	15.03	14.26	15.39	15.79
	8H	18.82	19.95	19.25	20.34	20.74	13.97	15.09	14.39	15.48	15.89
	12H	18.92	20.00	19.35	20.38	20.81	14.05	15.13	14.48	15.51	15.94
4H	2H	15.84	17.12	16.24	17.47	17.85	12.39	13.67	12.79	14.02	14.40
	3H	17.77	18.84	18.18	19.24	19.64	13.83	14.90	14.25	15.30	15.70
	4H	18.52	19.48	18.95	19.89	20.33	14.43	15.39	14.87	15.81	16.24
	6H	19.11	19.95	19.57	20.39	20.85	14.92	15.75	15.38	16.20	16.66
	8H	19.33	20.11	19.79	20.55	21.02	15.08	15.86	15.55	16.31	16.77
	12H	19.48	20.18	19.96	20.65	21.13	15.20	15.90	15.68	16.37	16.85
8H	4H	18.55	19.32	19.01	19.77	20.23	14.79	15.57	15.25	16.01	16.48
	6H	19.18	19.83	19.68	20.32	20.79	15.37	16.02	15.87	16.51	16.99
	8H	19.43	20.01	19.95	20.52	21.01	15.60	16.17	16.11	16.68	17.17
	12H	19.64	20.15	20.15	20.64	21.20	15.77	16.28	16.28	16.78	17.34
12H	4H	18.53	19.23	19.01	19.70	20.17	14.83	15.53	15.31	16.00	16.48
	6H	19.16	19.74	19.68	20.25	20.74	15.44	16.02	15.95	16.52	17.01
	8H	19.45	19.96	19.96	20.45	21.02	15.71	16.22	16.22	16.71	17.28

END OF REPORT