

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: P930429

Luminaire Tested: DFN2DS-PN2F0-020DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930429
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-PN2F0-020DS935-FLL
Description: 2 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

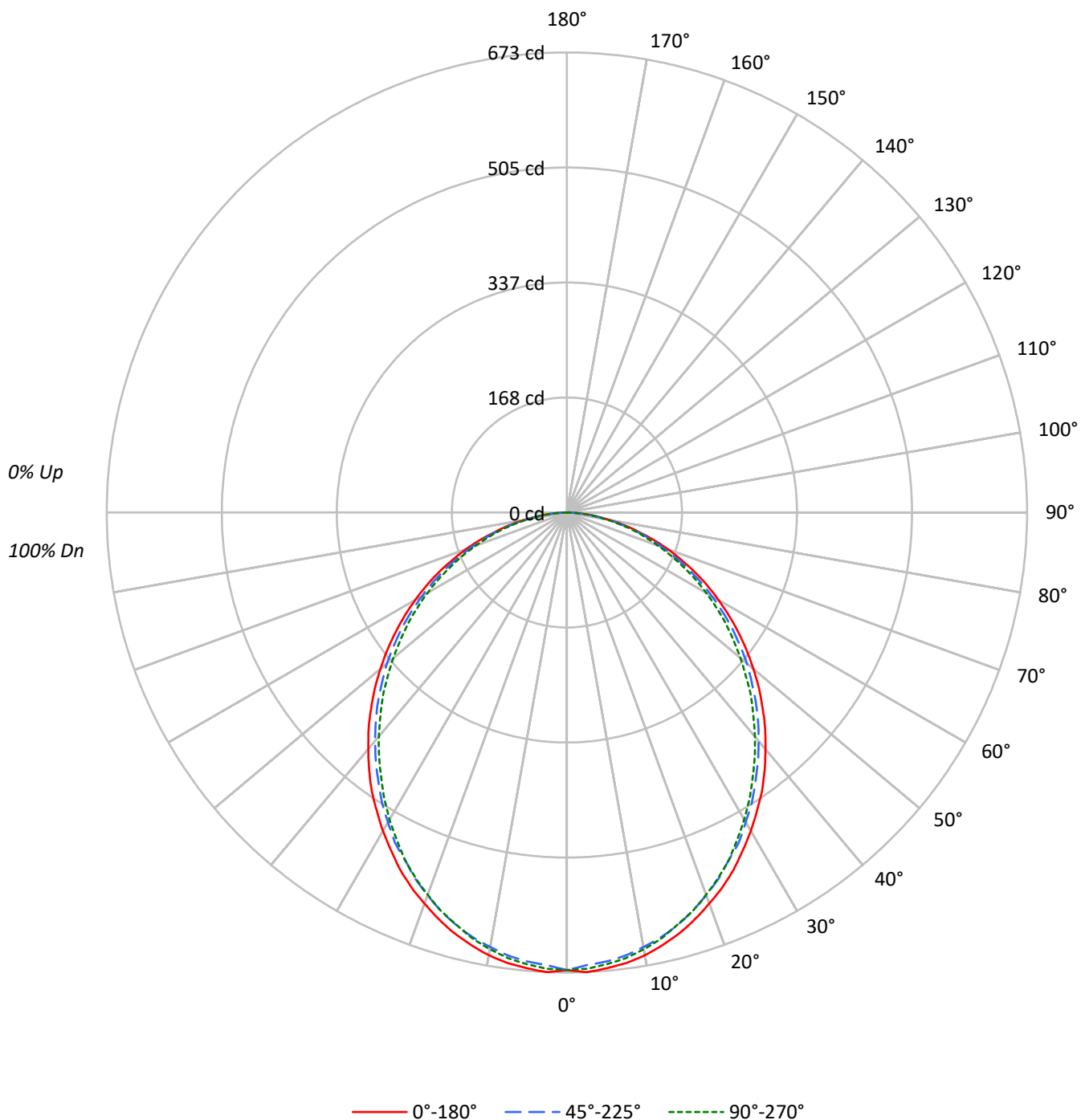
Lumens per Lamp: N/A
Luminaire Lumens: 1702.8 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 19.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.099
Total Harmonic Distortion (THDi): 0.979
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	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°	1450	1450	1450
5°	1455	1434	1443
10°	1446	1420	1427
15°	1429	1401	1400
20°	1403	1373	1372
25°	1378	1339	1339
30°	1346	1308	1297
35°	1315	1271	1252
40°	1277	1234	1210
45°	1240	1196	1167
50°	1199	1158	1117
55°	1157	1113	1072
60°	1109	1060	1021
65°	1059	1006	960
70°	994	941	897
75°	905	866	845
80°	803	778	738
85°	654	624	559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1240 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	3.7
10°-20°	177.2	10.4
20°-30°	260.5	15.3
30°-40°	302.5	17.8
40°-50°	302.1	17.7
50°-60°	263.4	15.5
60°-70°	194.7	11.4
70°-80°	110.2	6.5
80°-90°	29.1	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°	500.7	29.4
0°-40°	803.2	47.2
0°-60°	1368.8	80.4
0°-90°	1702.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1702.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	669	669	669	669	669	
5°	669	667	660	665	664	64
15°	637	633	625	628	624	179
25°	577	572	560	562	560	265
35°	498	491	481	477	474	311
45°	405	400	391	384	381	312
55°	306	302	295	287	284	274
65°	207	203	196	190	187	204
75°	108	107	104	100	101	115
85°	26	26	25	23	22	31
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	669.3	669.3	669.3	669.3	669.3
2.5°	673.1	669.9	662.8	669.3	668.0
5°	669.3	666.8	659.6	664.8	663.5
7.5°	664.8	660.9	653.9	659.0	657.7
10°	657.7	653.3	645.5	650.6	648.7
12.5°	648.0	644.2	636.5	639.7	638.4
15°	637.1	633.3	624.9	627.5	624.3
17.5°	623.6	619.8	611.4	614.6	611.4
20°	608.8	604.9	595.9	597.9	595.3
22.5°	594.0	588.2	579.8	579.8	578.5
25°	576.6	571.5	560.5	561.8	560.5
27.5°	557.3	552.8	544.5	542.6	539.3
30°	538.0	532.9	523.2	521.3	518.7
32.5°	517.4	513.6	503.3	499.4	496.8
35°	497.5	491.1	480.7	476.9	473.6
37.5°	475.0	469.1	458.8	454.3	451.1
40°	451.8	446.6	436.3	430.6	427.9
42.5°	429.2	424.1	413.8	407.4	403.5
45°	404.8	400.3	390.6	383.6	381.0
47.5°	381.0	376.5	366.2	359.0	355.3
50°	355.9	352.7	343.7	334.6	331.4
52.5°	331.4	326.9	318.5	311.5	307.0
55°	306.3	302.5	294.7	287.1	283.8
57.5°	281.2	278.0	269.6	262.0	259.3
60°	256.1	253.6	244.6	237.4	235.6
62.5°	231.7	227.1	220.8	214.3	211.7
65°	206.6	202.7	196.3	190.5	187.3
67.5°	180.9	177.6	171.8	167.4	164.8
70°	157.0	154.5	148.6	144.1	141.6
72.5°	132.6	130.0	126.8	122.3	120.4
75°	108.1	106.9	103.5	99.8	101.0
77.5°	86.3	83.7	82.3	80.4	78.5
80°	64.4	63.7	62.4	60.5	59.2
82.5°	43.8	43.8	43.2	40.6	40.6
85°	26.3	25.7	25.1	23.1	22.5
87.5°	11.6	10.3	9.0	7.1	6.4
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	12.57	14.18	12.94	14.50	14.81	12.13	13.74	12.49	14.05	14.37
	3H	14.32	15.78	14.70	16.10	16.46	13.83	15.29	14.21	15.61	15.97
	4H	14.97	16.34	15.37	16.69	17.06	14.47	15.84	14.87	16.19	16.57
	6H	15.44	16.71	15.85	17.07	17.46	14.94	16.21	15.35	16.57	16.96
	8H	15.58	16.79	16.01	17.18	17.58	15.08	16.29	15.50	16.68	17.08
	12H	15.67	16.83	16.10	17.21	17.64	15.16	16.32	15.59	16.70	17.13
4H	2H	13.13	14.50	13.53	14.85	15.23	12.78	14.15	13.18	14.50	14.87
	3H	15.11	16.25	15.52	16.65	17.05	14.70	15.85	15.11	16.25	16.65
	4H	15.88	16.92	16.32	17.33	17.77	15.46	16.50	15.89	16.91	17.35
	6H	16.48	17.39	16.94	17.83	18.28	16.05	16.95	16.50	17.39	17.85
	8H	16.67	17.52	17.13	17.96	18.43	16.23	17.08	16.69	17.52	17.99
	12H	16.80	17.56	17.28	18.04	18.51	16.35	17.11	16.83	17.59	18.06
8H	4H	16.16	17.00	16.62	17.45	17.91	15.78	16.63	16.24	17.07	17.54
	6H	16.87	17.58	17.37	18.06	18.54	16.49	17.19	16.98	17.68	18.16
	8H	17.13	17.76	17.64	18.27	18.76	16.74	17.37	17.25	17.88	18.36
	12H	17.33	17.89	17.84	18.38	18.94	16.92	17.48	17.43	17.97	18.53
12H	4H	16.18	16.94	16.66	17.42	17.89	15.82	16.58	16.30	17.06	17.52
	6H	16.92	17.55	17.43	18.06	18.54	16.55	17.18	17.06	17.69	18.17
	8H	17.23	17.79	17.74	18.28	18.84	16.85	17.41	17.36	17.90	18.46