

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: P930425

Luminaire Tested: DFN2DS-PN2F0-020DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930425
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-PN2F0-020DS927-FLL
Description: 2 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

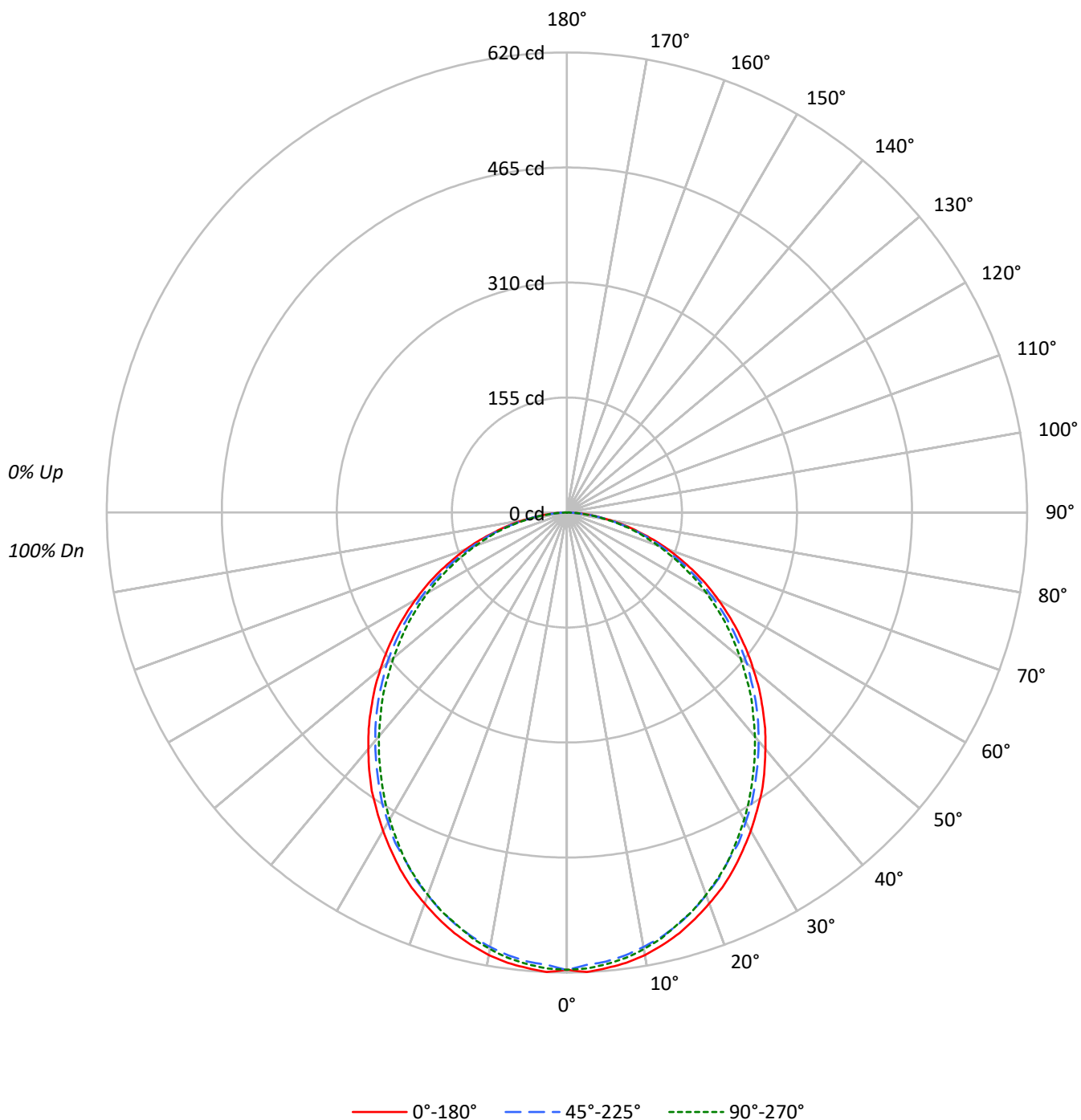
Lumens per Lamp: N/A
Luminaire Lumens: 1568.2 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

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°	1335	1335	1335
5°	1340	1321	1328
10°	1332	1307	1314
15°	1316	1290	1289
20°	1292	1265	1264
25°	1269	1234	1234
30°	1239	1205	1195
35°	1212	1171	1153
40°	1176	1136	1114
45°	1142	1102	1075
50°	1104	1066	1028
55°	1065	1025	987
60°	1022	976	940
65°	975	927	884
70°	916	867	826
75°	833	798	779
80°	740	717	680
85°	601	574	517

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1142 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	3.7
10°-20°	163.2	10.4
20°-30°	239.9	15.3
30°-40°	278.6	17.8
40°-50°	278.2	17.7
50°-60°	242.6	15.5
60°-70°	179.3	11.4
70°-80°	101.5	6.5
80°-90°	26.8	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°	461.1	29.4
0°-40°	739.7	47.2
0°-60°	1260.6	80.4
0°-90°	1568.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1568.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	616	614	608	612	611	59
15°	587	583	576	578	575	165
25°	531	526	516	517	516	244
35°	458	452	443	439	436	286
45°	373	369	360	353	351	288
55°	282	278	271	264	261	252
65°	190	187	181	175	172	188
75°	100	98	95	92	93	106
85°	24	24	23	21	21	29
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	616.3	616.3	616.3	616.3	616.3
2.5°	619.9	617.0	610.4	616.3	615.2
5°	616.3	614.0	607.5	612.2	611.0
7.5°	612.2	608.7	602.2	606.9	605.7
10°	605.7	601.6	594.5	599.1	597.4
12.5°	596.8	593.3	586.2	589.1	587.9
15°	586.7	583.2	575.5	577.8	574.9
17.5°	574.3	570.8	563.0	566.0	563.0
20°	560.7	557.1	548.8	550.6	548.2
22.5°	547.0	541.7	534.0	534.0	532.8
25°	531.0	526.3	516.2	517.3	516.2
27.5°	513.2	509.1	501.4	499.7	496.7
30°	495.5	490.7	481.9	480.1	477.7
32.5°	476.5	473.0	463.5	459.9	457.5
35°	458.2	452.2	442.7	439.2	436.2
37.5°	437.4	432.0	422.5	418.4	415.4
40°	416.0	411.3	401.8	396.6	394.1
42.5°	395.3	390.5	381.1	375.2	371.6
45°	372.8	368.7	359.7	353.2	350.9
47.5°	350.9	346.7	337.2	330.7	327.2
50°	327.7	324.8	316.5	308.2	305.2
52.5°	305.2	301.0	293.4	286.9	282.7
55°	282.1	278.5	271.4	264.4	261.4
57.5°	259.0	256.1	248.3	241.2	238.8
60°	235.9	233.6	225.2	218.7	216.9
62.5°	213.4	209.2	203.3	197.4	195.0
65°	190.2	186.7	180.8	175.4	172.5
67.5°	166.6	163.5	158.2	154.1	151.7
70°	144.6	142.2	136.9	132.7	130.4
72.5°	122.1	119.8	116.7	112.6	110.9
75°	99.6	98.4	95.4	91.9	93.1
77.5°	79.4	77.1	75.8	74.1	72.3
80°	59.3	58.7	57.5	55.7	54.5
82.5°	40.3	40.3	39.8	37.4	37.4
85°	24.2	23.7	23.1	21.3	20.8
87.5°	10.7	9.5	8.3	6.6	5.9
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	12.29	13.90	12.65	14.21	14.53	11.84	13.45	12.21	13.77	14.08
	3H	14.04	15.49	14.41	15.82	16.18	13.54	15.00	13.92	15.33	15.69
	4H	14.68	16.05	15.08	16.40	16.78	14.19	15.56	14.59	15.90	16.28
	6H	15.15	16.42	15.56	16.79	17.18	14.65	15.92	15.06	16.28	16.67
	8H	15.30	16.51	15.72	16.90	17.29	14.79	16.00	15.22	16.39	16.79
	12H	15.39	16.55	15.81	16.93	17.36	14.87	16.03	15.30	16.42	16.84
4H	2H	12.85	14.22	13.25	14.56	14.94	12.49	13.86	12.89	14.21	14.59
	3H	14.82	15.97	15.23	16.37	16.77	14.41	15.56	14.82	15.96	16.36
	4H	15.60	16.63	16.03	17.05	17.48	15.17	16.21	15.61	16.62	17.06
	6H	16.20	17.10	16.65	17.54	18.00	15.76	16.67	16.22	17.11	17.56
	8H	16.39	17.23	16.85	17.67	18.14	15.95	16.79	16.41	17.24	17.70
	12H	16.52	17.28	17.00	17.75	18.22	16.06	16.82	16.54	17.30	17.77
8H	4H	15.87	16.72	16.33	17.16	17.63	15.50	16.34	15.96	16.79	17.25
	6H	16.59	17.29	17.08	17.78	18.25	16.20	16.91	16.70	17.40	17.87
	8H	16.85	17.48	17.36	17.98	18.47	16.45	17.08	16.96	17.59	18.08
	12H	17.05	17.60	17.55	18.09	18.65	16.63	17.19	17.14	17.68	18.24
12H	4H	15.90	16.66	16.38	17.13	17.60	15.53	16.29	16.01	16.77	17.24
	6H	16.63	17.26	17.14	17.77	18.26	16.26	16.89	16.77	17.40	17.89
	8H	16.95	17.50	17.45	17.99	18.56	16.57	17.13	17.07	17.62	18.18