

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: P930047

Luminaire Tested: DFN2DS-HX2F0-020DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930047
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-HX2F0-020DS927-FLL
Description: 2 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

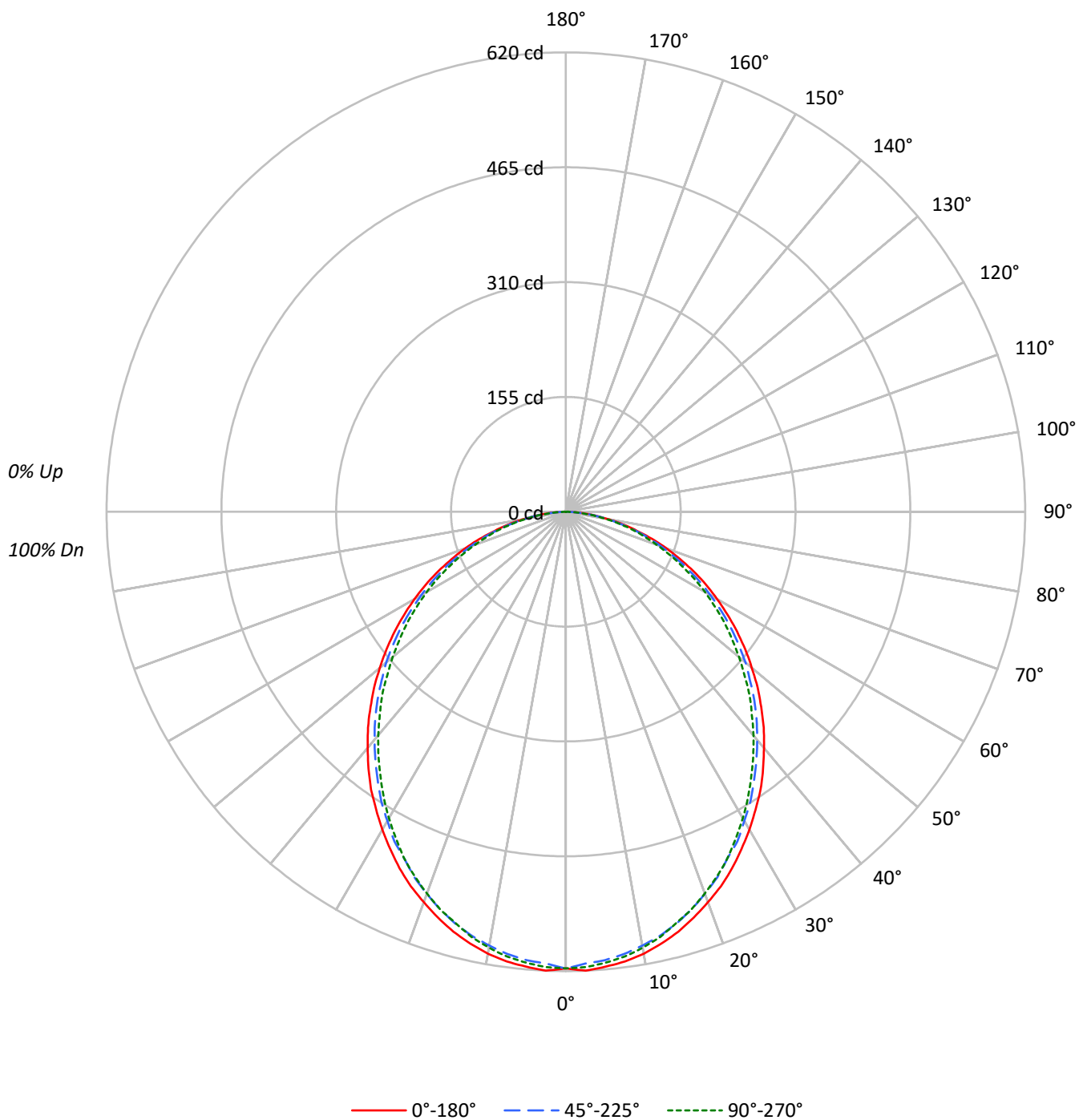
Lumens per Lamp: N/A
Luminaire Lumens: 1568.2 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 17.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
Total Harmonic Distortion (THDi): 0.064
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°	1452	1452	1452
5°	1458	1437	1445
10°	1449	1422	1429
15°	1431	1404	1402
20°	1406	1376	1375
25°	1380	1342	1342
30°	1348	1311	1300
35°	1318	1273	1255
40°	1280	1236	1212
45°	1242	1199	1169
50°	1201	1160	1119
55°	1159	1115	1074
60°	1112	1061	1022
65°	1060	1008	962
70°	996	943	898
75°	907	868	848
80°	805	780	739
85°	654	624	562

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1242 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	12.58	14.19	12.94	14.50	14.82	12.13	13.74	12.50	14.06	14.37
	3H	14.33	15.78	14.71	16.11	16.47	13.84	15.29	14.21	15.62	15.98
	4H	14.98	16.34	15.37	16.69	17.07	14.48	15.85	14.88	16.20	16.57
	6H	15.45	16.71	15.86	17.08	17.47	14.94	16.21	15.35	16.58	16.97
	8H	15.59	16.80	16.01	17.19	17.59	15.08	16.30	15.51	16.68	17.08
	12H	15.68	16.84	16.11	17.22	17.65	15.17	16.33	15.60	16.71	17.14
4H	2H	13.14	14.51	13.54	14.86	15.23	12.79	14.16	13.18	14.50	14.88
	3H	15.11	16.26	15.52	16.66	17.06	14.71	15.85	15.12	16.25	16.65
	4H	15.89	16.93	16.32	17.34	17.78	15.47	16.50	15.90	16.92	17.35
	6H	16.49	17.39	16.94	17.83	18.29	16.05	16.96	16.51	17.40	17.86
	8H	16.68	17.52	17.14	17.97	18.43	16.24	17.09	16.70	17.53	17.99
	12H	16.81	17.57	17.29	18.04	18.51	16.36	17.12	16.84	17.59	18.06
8H	4H	16.16	17.01	16.63	17.45	17.92	15.79	16.64	16.25	17.08	17.54
	6H	16.88	17.58	17.37	18.07	18.55	16.50	17.20	16.99	17.69	18.16
	8H	17.14	17.77	17.65	18.28	18.76	16.75	17.38	17.26	17.88	18.37
	12H	17.34	17.90	17.84	18.39	18.95	16.93	17.48	17.43	17.97	18.53
12H	4H	16.19	16.95	16.67	17.43	17.90	15.83	16.59	16.31	17.06	17.53
	6H	16.92	17.56	17.43	18.06	18.55	16.56	17.19	17.06	17.69	18.18
	8H	17.24	17.80	17.75	18.29	18.85	16.86	17.42	17.37	17.91	18.47