

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: P931235

Luminaire Tested: DFN2DS-TR2F0-020DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931235
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-TR2F0-020DS927-FLL
Description: 2 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

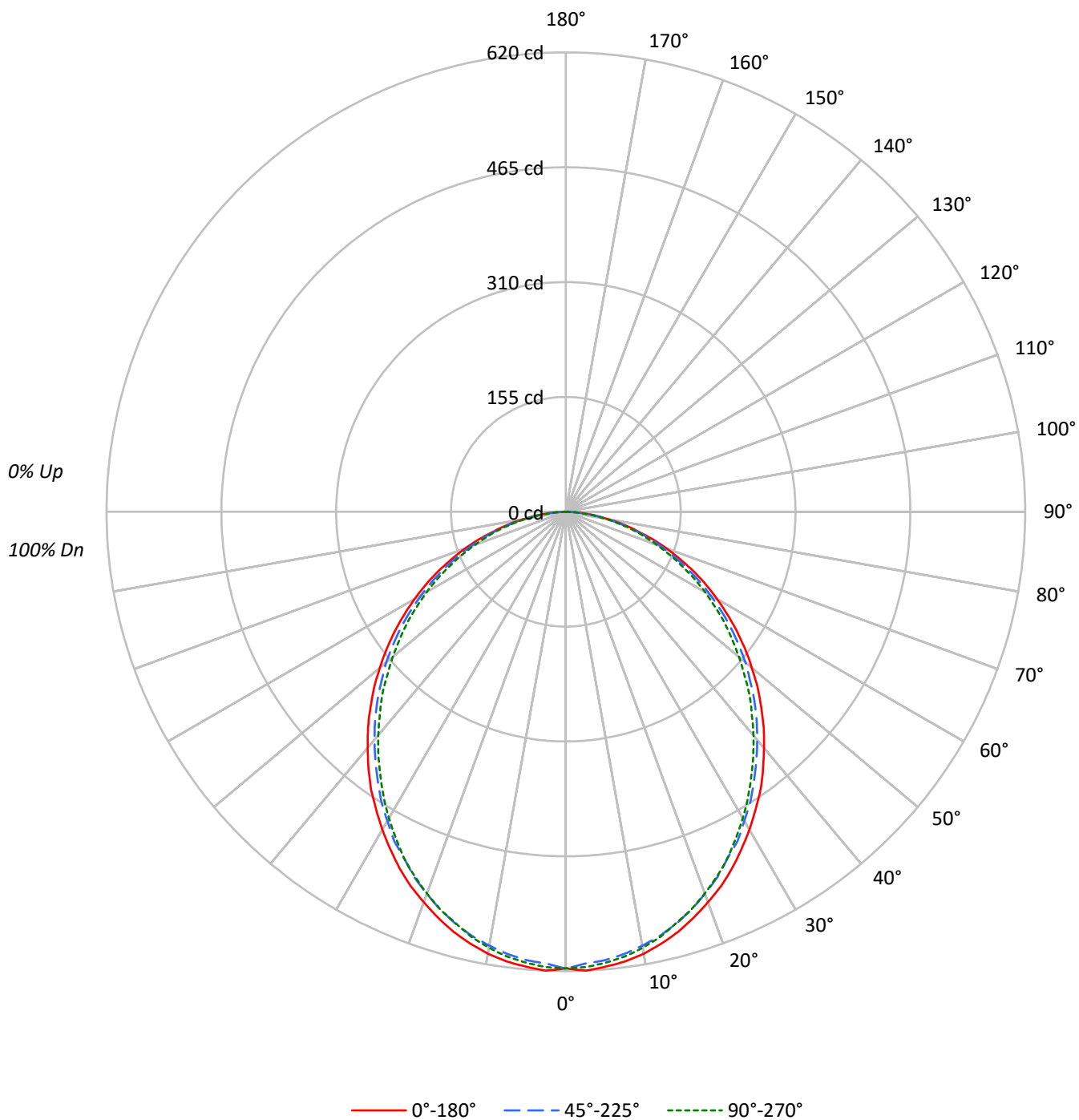
Lumens per Lamp: N/A
Luminaire Lumens: 1568.2 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

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°	1375	1375	1375
5°	1380	1360	1368
10°	1372	1346	1353
15°	1355	1329	1328
20°	1331	1303	1301
25°	1307	1270	1270
30°	1276	1241	1230
35°	1248	1205	1188
40°	1211	1170	1147
45°	1176	1135	1107
50°	1137	1098	1059
55°	1097	1055	1016
60°	1052	1005	968
65°	1004	954	910
70°	943	893	850
75°	858	822	802
80°	762	739	700
85°	619	591	532

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1176 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	12.39	14.00	12.75	14.31	14.63	11.94	13.55	12.31	13.87	14.18
	3H	14.14	15.59	14.52	15.92	16.28	13.65	15.10	14.02	15.43	15.79
	4H	14.79	16.15	15.18	16.50	16.88	14.29	15.66	14.69	16.01	16.38
	6H	15.25	16.52	15.67	16.89	17.28	14.75	16.02	15.16	16.39	16.78
	8H	15.40	16.61	15.82	17.00	17.40	14.89	16.10	15.32	16.49	16.89
	12H	15.49	16.65	15.92	17.03	17.46	14.98	16.14	15.40	16.52	16.95
4H	2H	12.95	14.32	13.35	14.67	15.04	12.60	13.96	12.99	14.31	14.69
	3H	14.92	16.07	15.33	16.47	16.87	14.52	15.66	14.93	16.06	16.46
	4H	15.70	16.74	16.13	17.15	17.59	15.28	16.31	15.71	16.73	17.16
	6H	16.30	17.20	16.75	17.64	18.10	15.86	16.77	16.32	17.21	17.67
	8H	16.49	17.33	16.95	17.78	18.24	16.05	16.90	16.51	17.34	17.80
	12H	16.62	17.38	17.10	17.85	18.32	16.17	16.93	16.65	17.40	17.87
8H	4H	15.97	16.82	16.43	17.26	17.73	15.60	16.45	16.06	16.89	17.35
	6H	16.69	17.39	17.18	17.88	18.36	16.31	17.01	16.80	17.50	17.97
	8H	16.95	17.58	17.46	18.09	18.57	16.56	17.19	17.07	17.69	18.18
	12H	17.15	17.71	17.65	18.20	18.76	16.73	17.29	17.24	17.78	18.34
12H	4H	16.00	16.76	16.48	17.24	17.71	15.64	16.39	16.12	16.87	17.34
	6H	16.73	17.37	17.24	17.87	18.36	16.36	17.00	16.87	17.50	17.99
	8H	17.05	17.61	17.56	18.10	18.66	16.67	17.23	17.18	17.72	18.28