

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242959

Luminaire Tested: **S121DR-H685D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242959
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H685D930-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2083.8 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

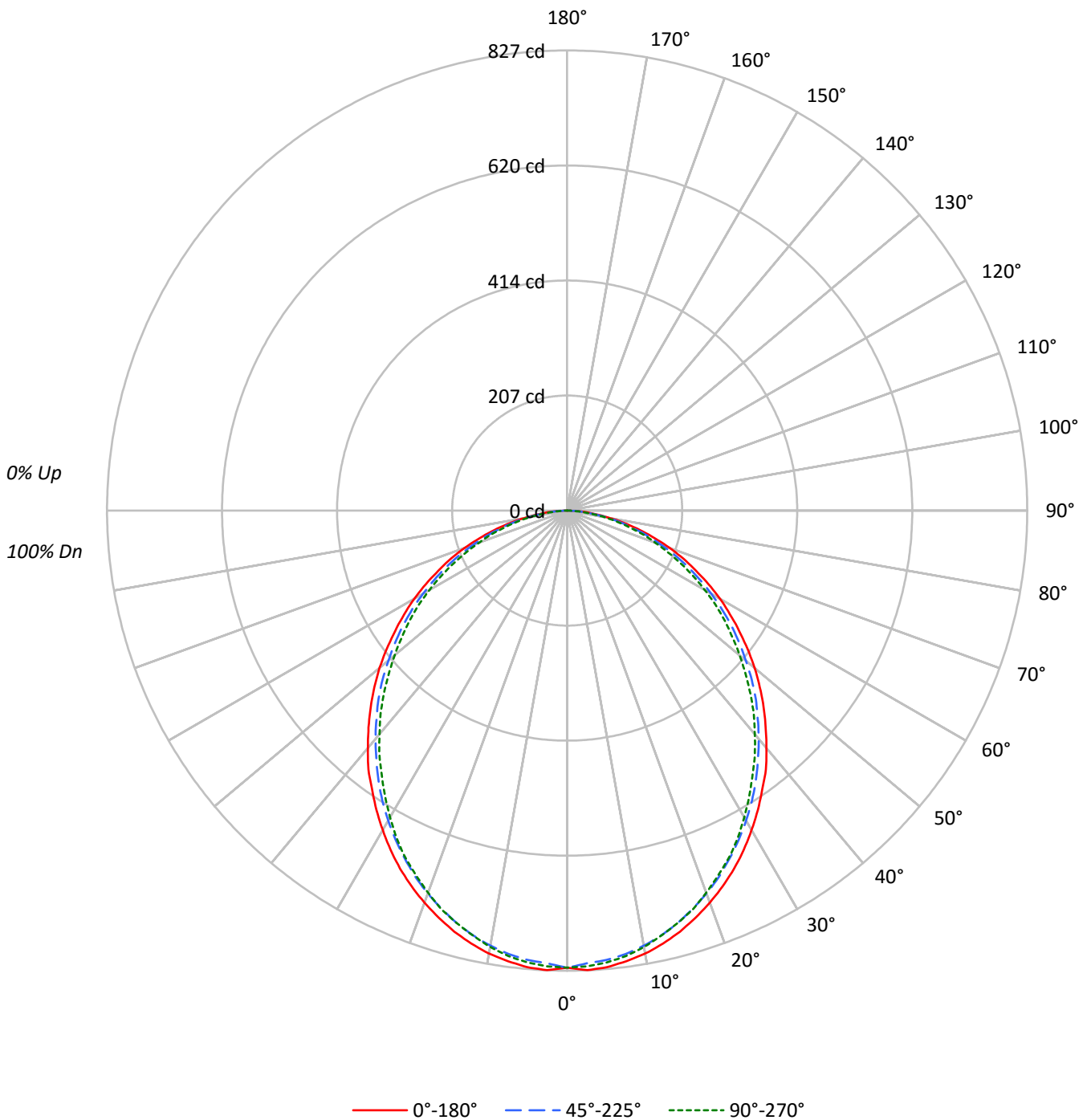
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242959

CATALOG NUMBER: S121DR-H685D930-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242959

CATALOG NUMBER: S121DR-H685D930-X4F0-XX-UDD-F-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24338	24338	24338
5°	24499	24113	24249
10°	24322	23889	23955
15°	24028	23537	23537
20°	23642	23090	23043
25°	23218	22571	22499
30°	22684	22006	21773
35°	22111	21395	21008
40°	21552	20728	20287
45°	20926	20097	19522
50°	20282	19333	18669
55°	19506	18602	17894
60°	18809	17730	16960
65°	17878	16756	15852
70°	16945	15568	14571
75°	15512	14115	13245
80°	13514	12473	11552
85°	11661	9587	8023



TEST NUMBER: P242959

CATALOG NUMBER: S121DR-H685D930-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	3.7
10°-20°	217.8	10.5
20°-30°	320.2	15.4
30°-40°	371.6	17.8
40°-50°	370.6	17.8
50°-60°	322.6	15.5
60°-70°	237.4	11.4
70°-80°	132.2	6.3
80°-90°	34.0	1.6
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°	615.3	29.5
0°-40°	986.9	47.4
0°-60°	1680.1	80.6
0°-90°	2083.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2083.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	821	821	821	821	821	
5°	824	819	811	817	815	78
15°	783	779	767	770	767	221
25°	710	702	690	690	688	327
35°	611	604	592	585	581	383
45°	499	491	480	470	466	385
55°	378	371	360	350	346	338
65°	255	250	239	229	226	253
75°	136	129	123	118	116	144
85°	34	32	28	24	24	40
90°	0	0	0	0	0	



TEST NUMBER: P242959

CATALOG NUMBER: S121DR-H685D930-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	821.4	821.4	821.4	821.4	821.4
2.5°	826.7	822.1	814.5	821.4	819.8
5°	823.7	819.1	810.7	816.8	815.3
7.5°	816.8	813.0	803.9	809.2	807.7
10°	808.4	803.9	794.0	798.5	796.2
12.5°	797.0	793.2	781.8	785.6	782.5
15°	783.3	778.7	767.3	770.4	767.3
17.5°	767.3	762.8	750.6	752.9	751.3
20°	749.8	743.7	732.3	733.8	730.8
22.5°	730.8	723.9	712.5	712.5	709.5
25°	710.2	701.9	690.4	690.4	688.2
27.5°	687.4	679.8	667.6	666.1	663.8
30°	663.0	655.4	643.2	640.2	636.4
32.5°	637.9	629.5	618.1	612.8	609.0
35°	611.3	603.7	591.5	584.6	580.8
37.5°	586.9	576.3	563.3	557.2	554.2
40°	557.2	548.1	535.9	527.5	524.5
42.5°	528.3	519.9	507.0	498.6	496.3
45°	499.4	491.0	479.6	469.7	465.9
47.5°	469.7	461.3	449.9	440.0	434.7
50°	440.0	431.6	419.4	409.5	405.0
52.5°	408.8	402.7	389.7	380.6	374.5
55°	377.6	370.7	360.1	350.2	346.4
57.5°	347.1	341.0	329.6	319.0	316.7
60°	317.4	311.3	299.2	290.0	286.2
62.5°	286.2	280.1	268.7	259.6	255.8
65°	255.0	249.7	239.0	229.1	226.1
67.5°	226.1	219.2	209.3	200.2	196.4
70°	195.6	188.0	179.7	172.0	168.2
72.5°	165.2	159.1	152.2	144.6	143.1
75°	135.5	129.4	123.3	118.0	115.7
77.5°	107.3	102.8	98.2	92.9	91.3
80°	79.2	76.1	73.1	69.3	67.7
82.5°	55.6	53.3	48.7	45.7	44.2
85°	34.3	32.0	28.2	24.4	23.6
87.5°	16.0	12.9	9.9	8.4	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)