

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: P242964

Luminaire Tested: **S121DR-H685D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242964
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-H685D935-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2200.6 lumens
Efficiency: N/A
Efficacy: 93.2 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

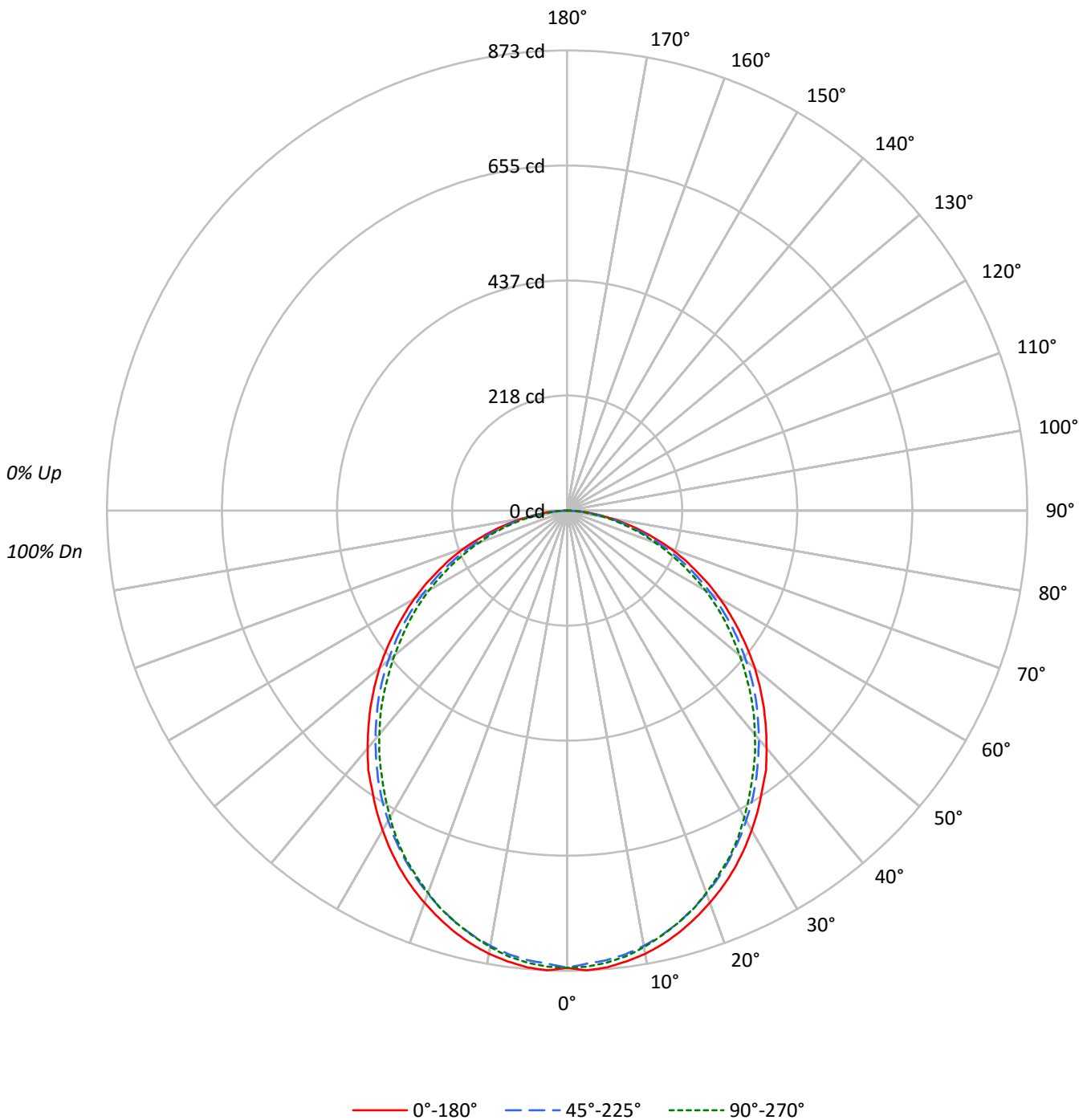
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242964

CATALOG NUMBER: S121DR-H685D935-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242964

CATALOG NUMBER: S121DR-H685D935-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	81	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°	25701	25701	25701
5°	25870	25466	25609
10°	25685	25228	25300
15°	25374	24856	24856
20°	24966	24386	24333
25°	24520	23836	23758
30°	23956	23241	22995
35°	23349	22593	22187
40°	22762	21888	21424
45°	22099	21224	20616
50°	21421	20416	19715
55°	20596	19640	18896
60°	19864	18720	17914
65°	18881	17696	16742
70°	17898	16434	15394
75°	16382	14905	13990
80°	14265	13173	12200
85°	12307	10097	8465



TEST NUMBER: P242964

CATALOG NUMBER: S121DR-H685D935-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	3.7
10°-20°	230.0	10.5
20°-30°	338.1	15.4
30°-40°	392.4	17.8
40°-50°	391.4	17.8
50°-60°	340.7	15.5
60°-70°	250.8	11.4
70°-80°	139.7	6.3
80°-90°	35.9	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°	649.8	29.5
0°-40°	1042.2	47.4
0°-60°	1774.3	80.6
0°-90°	2200.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2200.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	867	867	867	867	867	
5°	870	865	856	863	861	82
15°	827	822	810	814	810	233
25°	750	741	729	729	727	345
35°	646	638	625	617	613	404
45°	527	518	506	496	492	407
55°	399	392	380	370	366	357
65°	269	264	252	242	239	268
75°	143	137	130	125	122	152
85°	36	34	30	26	25	42
90°	0	0	0	0	0	



TEST NUMBER: P242964

CATALOG NUMBER: S121DR-H685D935-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	867.4	867.4	867.4	867.4	867.4
2.5°	873.0	868.2	860.2	867.4	865.8
5°	869.8	865.0	856.2	862.6	861.0
7.5°	862.6	858.6	848.9	854.5	852.9
10°	853.7	848.9	838.5	843.3	840.9
12.5°	841.7	837.7	825.6	829.6	826.4
15°	827.2	822.4	810.3	813.5	810.3
17.5°	810.3	805.5	792.6	795.1	793.4
20°	791.8	785.4	773.4	775.0	771.7
22.5°	771.7	764.5	752.5	752.5	749.2
25°	750.0	741.2	729.1	729.1	726.7
27.5°	725.9	717.9	705.0	703.4	701.0
30°	700.2	692.2	679.3	676.1	672.1
32.5°	673.7	664.8	652.8	647.1	643.1
35°	645.5	637.5	624.6	617.4	613.4
37.5°	619.8	608.6	594.9	588.5	585.2
40°	588.5	578.8	565.9	557.1	553.9
42.5°	557.9	549.1	535.4	526.6	524.1
45°	527.4	518.5	506.5	496.0	492.0
47.5°	496.0	487.2	475.1	464.7	459.0
50°	464.7	455.8	442.9	432.5	427.7
52.5°	431.7	425.3	411.6	402.0	395.5
55°	398.7	391.5	380.2	369.8	365.8
57.5°	366.6	360.1	348.1	336.8	334.4
60°	335.2	328.8	315.9	306.3	302.3
62.5°	302.3	295.8	283.8	274.1	270.1
65°	269.3	263.7	252.4	242.0	238.8
67.5°	238.8	231.5	221.1	211.4	207.4
70°	206.6	198.6	189.7	181.7	177.7
72.5°	174.4	168.0	160.8	152.7	151.1
75°	143.1	136.7	130.2	124.6	122.2
77.5°	113.3	108.5	103.7	98.1	96.5
80°	83.6	80.4	77.2	73.2	71.5
82.5°	58.7	56.3	51.4	48.2	46.6
85°	36.2	33.8	29.7	25.7	24.9
87.5°	16.9	13.7	10.5	8.8	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)