

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: P243043

Luminaire Tested: **S121RDR-H685D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243043
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-H685D927-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1623.1 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

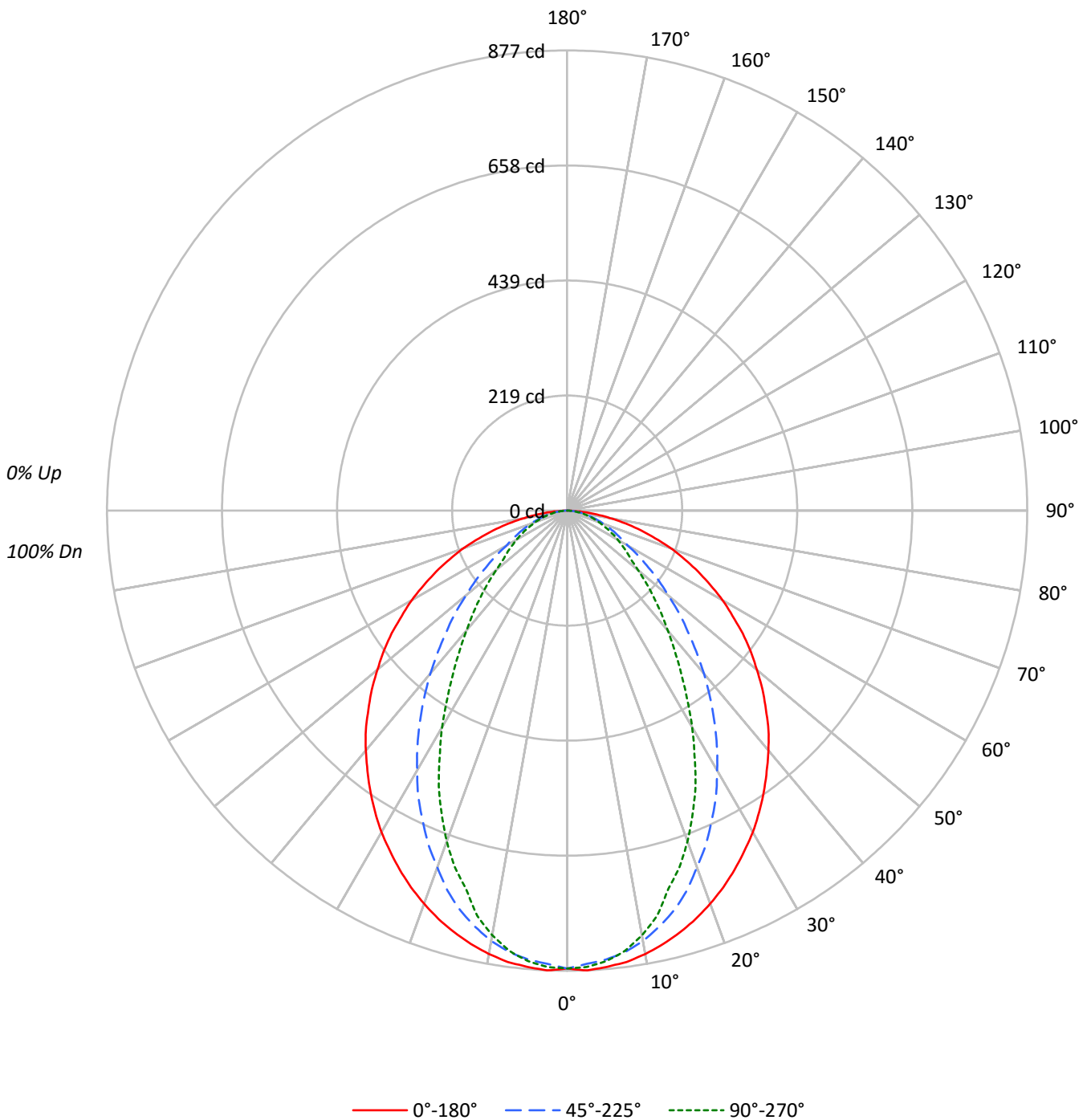
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	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					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50					50			
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41					41			
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34					34			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31					31			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25861	25861	25861
5°	25960	25540	25629
10°	25814	25056	24722
15°	25525	24187	22871
20°	25140	22810	21154
25°	24690	21303	18932
30°	24216	19560	16296
35°	23649	17684	13698
40°	23087	15677	11530
45°	22439	13606	9763
50°	21753	11593	8113
55°	21092	9779	7222
60°	20296	7935	6619
65°	19287	7102	6065
70°	18262	6411	5570
75°	16680	5758	5083
80°	14265	5051	4539
85°	11049	4284	3774



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	5.0
10°-20°	222.1	13.7
20°-30°	303.0	18.7
30°-40°	314.1	19.4
40°-50°	274.1	16.9
50°-60°	206.3	12.7
60°-70°	135.3	8.3
70°-80°	69.0	4.2
80°-90°	17.5	1.1
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°	606.8	37.4
0°-40°	921.0	56.7
0°-60°	1401.4	86.3
0°-90°	1623.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1623.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	873	873	873	873	873	
5°	873	868	859	864	862	83
15°	832	820	788	766	746	235
25°	755	724	652	597	579	348
35°	654	598	489	407	379	409
45°	536	458	325	252	233	414
55°	408	311	189	144	140	364
65°	275	172	101	90	86	273
75°	146	67	50	46	44	154
85°	32	13	13	11	11	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	872.8	872.8	872.8	872.8	872.8
2.5°	877.2	873.5	864.6	872.0	870.6
5°	872.8	868.3	858.7	863.9	861.7
7.5°	867.6	861.7	848.4	850.6	846.2
10°	858.0	850.6	832.8	828.4	821.7
12.5°	846.2	838.0	812.1	801.8	791.4
15°	832.1	820.3	788.5	766.3	745.6
17.5°	815.8	801.0	758.9	727.8	712.3
20°	797.3	778.1	723.4	687.1	670.9
22.5°	777.4	753.0	690.1	644.2	625.0
25°	755.2	724.1	651.6	596.9	579.1
27.5°	731.5	696.0	614.6	551.8	525.9
30°	707.8	663.5	571.7	501.5	476.3
32.5°	681.2	630.9	531.1	453.4	425.3
35°	653.8	597.6	488.9	406.8	378.7
37.5°	625.0	564.3	446.7	363.9	336.5
40°	596.9	528.1	405.3	322.5	298.1
42.5°	568.0	491.9	363.9	286.2	265.5
45°	535.5	457.8	324.7	252.2	233.0
47.5°	505.2	420.9	289.2	221.9	204.1
50°	471.9	384.6	251.5	193.8	176.0
52.5°	440.8	347.6	220.4	164.2	153.1
55°	408.3	310.7	189.3	143.5	139.8
57.5°	373.5	274.4	162.0	128.7	124.3
60°	342.5	239.6	133.9	115.4	111.7
62.5°	307.7	204.9	116.1	102.8	99.1
65°	275.1	171.6	101.3	89.5	86.5
67.5°	242.6	141.3	87.3	77.7	74.7
70°	210.8	112.4	74.0	66.6	64.3
72.5°	176.0	85.1	62.1	56.2	54.7
75°	145.7	66.6	50.3	45.9	44.4
77.5°	113.9	50.3	39.2	36.2	35.5
80°	83.6	36.2	29.6	27.4	26.6
82.5°	57.0	24.4	20.7	19.2	18.5
85°	32.5	13.3	12.6	11.1	11.1
87.5°	12.6	5.2	4.4	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)