

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: P243057

Luminaire Tested: **S121RDR-H685D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243057
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-H685D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2069.2 lumens
Efficiency: N/A
Efficacy: 87.7 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

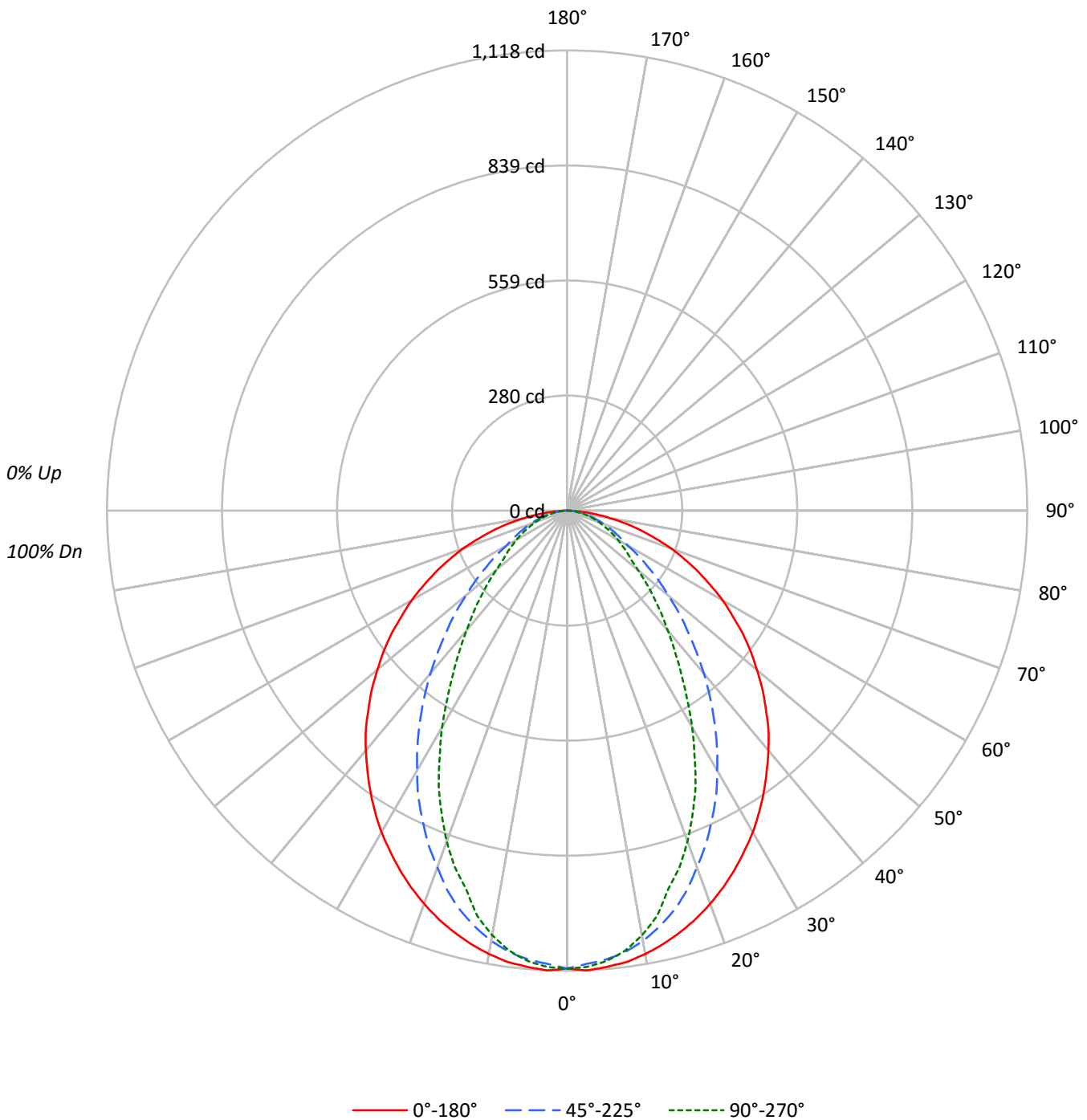
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32966	32966	32966
5°	33092	32560	32673
10°	32909	31943	31519
15°	32540	30831	29153
20°	32048	29075	26966
25°	31473	27158	24137
30°	30871	24938	20774
35°	30149	22546	17463
40°	29431	19985	14698
45°	28607	17344	12445
50°	27731	14778	10344
55°	26888	12470	9205
60°	25873	10116	8439
65°	24595	9058	7733
70°	23278	8169	7104
75°	21259	7338	6480
80°	18172	6433	5784
85°	14108	5439	4793



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.2	5.0
10°-20°	283.1	13.7
20°-30°	386.3	18.7
30°-40°	400.5	19.4
40°-50°	349.4	16.9
50°-60°	263.0	12.7
60°-70°	172.4	8.3
70°-80°	87.9	4.2
80°-90°	22.3	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°	773.6	37.4
0°-40°	1174.1	56.7
0°-60°	1786.5	86.3
0°-90°	2069.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2069.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1113	1113	1113	1113	1113	
5°	1113	1107	1095	1101	1098	106
15°	1061	1046	1005	977	950	299
25°	963	923	831	761	738	443
35°	834	762	623	519	483	521
45°	683	584	414	322	297	527
55°	520	396	241	183	178	465
65°	351	219	129	114	110	348
75°	186	85	64	58	57	196
85°	42	17	16	14	14	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1112.6	1112.6	1112.6	1112.6	1112.6
2.5°	1118.3	1113.6	1102.2	1111.7	1109.8
5°	1112.6	1107.0	1094.7	1101.3	1098.5
7.5°	1106.0	1098.5	1081.5	1084.3	1078.7
10°	1093.8	1084.3	1061.7	1056.0	1047.6
12.5°	1078.7	1068.3	1035.3	1022.1	1008.9
15°	1060.8	1045.7	1005.1	976.8	950.4
17.5°	1040.0	1021.2	967.4	927.8	908.0
20°	1016.4	991.9	922.1	875.9	855.2
22.5°	991.0	959.9	879.7	821.3	796.7
25°	962.7	923.1	830.7	760.9	738.3
27.5°	932.5	887.3	783.5	703.4	670.4
30°	902.3	845.8	728.9	639.3	607.2
32.5°	868.4	804.3	677.0	578.0	542.2
35°	833.5	761.9	623.3	518.6	482.8
37.5°	796.7	719.4	569.5	463.9	429.0
40°	760.9	673.2	516.7	411.1	380.0
42.5°	724.1	627.0	463.9	364.9	338.5
45°	682.7	583.6	413.9	321.5	297.0
47.5°	644.0	536.5	368.7	282.9	260.2
50°	601.6	490.3	320.6	247.0	224.4
52.5°	562.0	443.2	281.0	209.3	195.2
55°	520.5	396.0	241.4	182.9	178.2
57.5°	476.2	349.8	206.5	164.1	158.4
60°	436.6	305.5	170.7	147.1	142.4
62.5°	392.2	261.2	148.0	131.1	126.3
65°	350.8	218.8	129.2	114.1	110.3
67.5°	309.3	180.1	111.3	99.0	95.2
70°	268.7	143.3	94.3	84.9	82.0
72.5°	224.4	108.4	79.2	71.7	69.8
75°	185.7	84.9	64.1	58.5	56.6
77.5°	145.2	64.1	50.0	46.2	45.3
80°	106.5	46.2	37.7	34.9	33.9
82.5°	72.6	31.1	26.4	24.5	23.6
85°	41.5	17.0	16.0	14.1	14.1
87.5°	16.0	6.6	5.7	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)