

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: G3-1802-639-47

Luminaire Tested: **S121DR-H685D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: G3-1802-639-47
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H685D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2737.4 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.1' x L: 3.9' x H: 0')
CIE Type: Direct

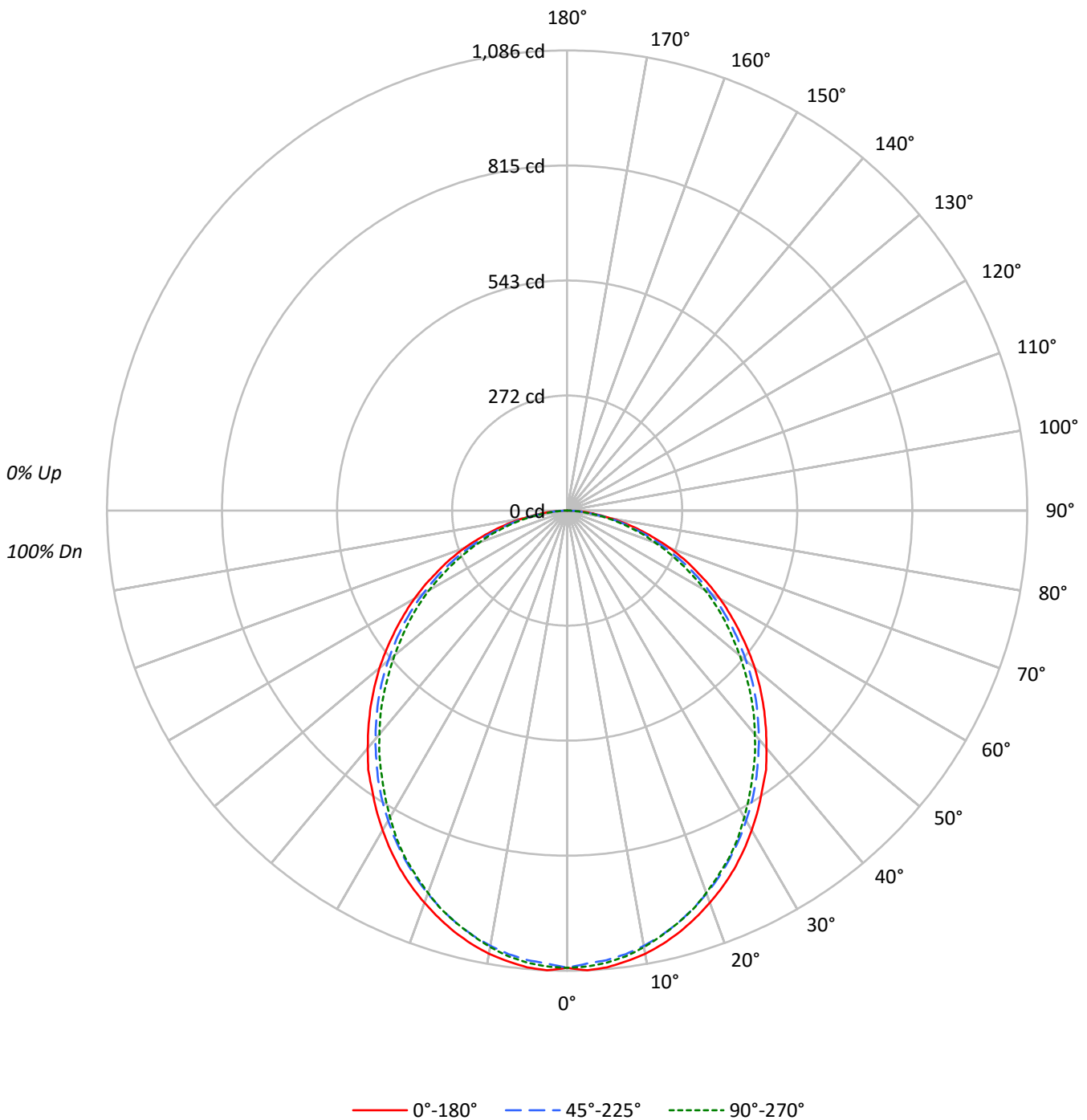
Input Watts (W): 25.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	28619	28619	28619
5°	28809	28356	28516
10°	28603	28091	28172
15°	28256	27679	27679
20°	27803	27154	27097
25°	27305	26544	26457
30°	26676	25880	25604
35°	26001	25159	24706
40°	25345	24376	23856
45°	24607	23632	22957
50°	23851	22737	21952
55°	22937	21873	21041
60°	22121	20848	19946
65°	21025	19707	18640
70°	19931	18302	17139
75°	18242	16602	15577
80°	15886	14664	13594
85°	13695	11260	9434



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.7	3.7
10°-20°	286.1	10.5
20°-30°	420.6	15.4
30°-40°	488.1	17.8
40°-50°	486.8	17.8
50°-60°	423.8	15.5
60°-70°	311.9	11.4
70°-80°	173.7	6.3
80°-90°	44.7	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°	808.3	29.5
0°-40°	1296.4	47.4
0°-60°	2207.1	80.6
0°-90°	2737.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2737.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1082	1076	1065	1073	1071	103
15°	1029	1023	1008	1012	1008	290
25°	933	922	907	907	904	429
35°	803	793	777	768	763	503
45°	656	645	630	617	612	506
55°	496	487	473	460	455	444
65°	335	328	314	301	297	333
75°	178	170	162	155	152	189
85°	45	42	37	32	31	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1079	1079	1079	1079	1079
2.5°	1086	1080	1070	1079	1077
5°	1082	1076	1065	1073	1071
7.5°	1073	1068	1056	1063	1061
10°	1062	1056	1043	1049	1046
12.5°	1047	1042	1027	1032	1028
15°	1029	1023	1008	1012	1008
17.5°	1008	1002	986	989	987
20°	985	977	962	964	960
22.5°	960	951	936	936	932
25°	933	922	907	907	904
27.5°	903	893	877	875	872
30°	871	861	845	841	836
32.5°	838	827	812	805	800
35°	803	793	777	768	763
37.5°	771	757	740	732	728
40°	732	720	704	693	689
42.5°	694	683	666	655	652
45°	656	645	630	617	612
47.5°	617	606	591	578	571
50°	578	567	551	538	532
52.5°	537	529	512	500	492
55°	496	487	473	460	455
57.5°	456	448	433	419	416
60°	417	409	393	381	376
62.5°	376	368	353	341	336
65°	335	328	314	301	297
67.5°	297	288	275	263	258
70°	257	247	236	226	221
72.5°	217	209	200	190	188
75°	178	170	162	155	152
77.5°	141	135	129	122	120
80°	104	100	96	91	89
82.5°	73	70	64	60	58
85°	45	42	37	32	31
87.5°	21	17	13	11	10
90°	0	0	0	0	0

(END OF REPORT)